Vol. XI, No. 1 September, 1941

JOURNAL

OF THE

ANNAMALAI UNIVERSITY.

Published by the University
Annamalainagar
1941

Vol. XI, No. 1 September, 1941

JOURNAL

OF THE

ANNAMALAI UNIVERSITY

EDITOR

PROFESSOR B. V. NARAYANASWAMI NAIDU, M.A., B.COM., PH.D., BAR-AT-LAW

EDITORIAL BOARD

PROFESSOR C. S. SRINIVASACHARIAR, M.A.

PROFESSOR A. NARASINGA RAO, M.A., L.T., D.Sc., F.A.Sc.

PROFESSOR S. RAMACHANDRA RAO, M.A., D.Sc., F.INST.P., PH.D.

PROFESSOR R. RÂMANUJACHARI, M.A.

PUBLISHED BY THE UNIVERSITY

ANNAMALAINAGAR

1941

தமிழ்நாடு ஆவணக்காப்பக நூலகம்
124095
★ சென்னை-600 008. ★

T4 m 211A, N32
N41.11.1

NOTICE

To contributors and others

Contributions, remittances, books for review, exchanges and correspondence regarding all matters may be addressed to:—

Dr. B. V. Narayanaswami Naidu

Economics Department,

Annamalai University,

Annamalainagar.

CONTENTS

PAGE

1. Omens and Divination in Early Tamil Religion
   By S. K. Govindasami, M.A. .. 1

2. Flora of Annamalainagar
   By S. K. Pillai, M.Sc. .. 9

3. Studies in Sanskrit Texts on Temple Architecture with Special Reference to the Tantrasamuccaya
   By N. V. Mallaya .. 25

4. Bhāvanāviveka with Viṣamagranthibhedikā
   By V. A. Ramaswami Sastri, M.A., and
   K. A. Sivaramakrishna Sastri

5. Siddhitraya
   By R. Ramanujachariar, M.A., and
   K. Srinivasachariar

6. Reviews
   Economics, A Social Science
   By B. V. Narayanaswamy .. 67
   A Note on Father Gnanaprakasar's Etymological and Comparative Lexicon of the Tamil Language
   By A. C. Chettiar .. 69
   Road Rail Transport
   By S. G. Beri .. 73
   The Madras General Sales Tax Act
   By S. G. Beri .. 75

7. Problem of Rural Credit in Madras Presidency
   By P. Vaidyanathan, M.A. .. 1–100

JOURNAL

OF THE

ANNAMALAI UNIVERSITY

VOL. XI. SEPTEMBER, 1941 NO. 1

Omens and Divination in Early Tamil Religion

By

S. K. Govindasami, M.A.

Belief in omens, either as a sign of good luck or as a warning of misfortune, is universal even to-day. It is admitted on all hands that it is the common feature of all primitive culture. Belief in omens has been developed on the basis that occurrences which are not apparently connected as cause and effect are really connected. It is built up on an empirical foundation; and mal-observation of chance coincidences is the root of omens. At the moment a man is dying an owl might have screeched, and to the mind of the people worried over the condition of the man, the screeching appears as portentous of death. From such coincidences, in course of time, it is generalised that all hootings of the owl are bad omens. Thus has developed belief in a variety of omens. There is the natural desire of man, moreover, to penetrate into the unborn future and to learn of things that are still in the lap of nature. It is this desire which drives man to look for any sign of the future in bird-calls, in the movement of animals and the human body itself, and in the ever-changing face of the heavens.

Strong belief in omens and their value to man has necessitated their interpretation by experts. Thus divination came into existence.

"By divination is meant the endeavour to obtain information about things future or otherwise removed from ordinary perception, by consulting informants other than human"[1] writes Mr. H. J. Rose. Though different means of divination are employed, it is mainly of two kinds, *viz.*, voluntary and involuntary. Divination of the first sort consists of seeking after omens which are "interpreted, so to speak, in its own right with no thought of appeal to any supernatural power, god or spirit".[2] The second variety is divination proper, and in the strict etymological sense of the word it means an enquiry of "some sort of a deity, generally by means of signs conceived of as being sent by him."[3]

Now turning to the early Tamil religion, we find abundant material in literature to prove the deep-rooted faith of the Tamils in omens. The words *virichchi, nimittam* and *puḷ* in the Tamil language denote portents. The history of the last word is interesting. Its original meaning is a bird. But on account of the antiquity and universality of bird-omen, the word has come to mean omen in general. In the commentary of Nachchinarkkiniyar on *sūtra* 58 of *Tolkappiyam, Purattiṇai-iyal,* the word occurs with an epithet as *paṛavāpuḷ* or the bird that does not fly is a omen. There is not a single activity of every-day life that does not require the consultation of the omens. Princes and peasants and thieves too attached great value to omens. Different means of interpreting them also obtained in the early period of Tamil literature.

Divination from birds and beasts is most common not only in the country of the Tamils, but all other countries of the world. This universal belief in bird-omen might have been due to their capacity to go nearer heaven than man, and primitive man would have concluded from this that the bird is in a position to know what is in the lap of gods. The English idiom,—a bird has whispered into one's ear—must have had its origin in a similar belief. A young woman separated from her husband consults the bird-call to find signs of their early reunion.[4] The early Tamil king had trained interpreters in his service who were sent out to study the flight of birds just as the army moved on a cam-

1. Hasting's *Encyclopaedia of Religion*, Vol. iv, p. 775.
2. *Op. cit.*, p. 776.
3. *Op. cit.*, p. 776.
4. *Kuṛuntogai*, v. 218, l. 4.

paign.[5] It appears that the people have believed that according as the determination with which a king goes forth to battle to win it, so the birds voluntarily appear and give good omen.[6] Fisher-folk before going afishing, have the custom of consulting omens.[7] Thieves are said to depend on eight things for success in his art and omen is mentioned as one of them.[8]

Besides birds, some reptiles are also considered as indicators of omens. The tittering of lizards on the walls of houses has been and is even now taken to be portentous. A young woman pining for her lord hears the lizard tittering, and interpreting it as predicting the arrival of her husband, she blesses the lizard.[9] This practice of blessing the omen animal is a practice widely prevalent.[10] Here is a passage from a *Saṅgam* classic, the *Kuṟuntogai*, which refers to the omen of the chameleon :

> " He has seen on that road to the desert where travellers look for the good omen of the grown up, a sickle-backed male chamelion ".[11]

It must be pointed out here that not all animals are ominous to all people. They depend on particular environments. Here is an instance in point. Kōvalan, the hero of the *Epic of the Anklet*, goes forth from that portion of the city of Madura which is the dwelling place of shepherds and cowherds. Right across his path rushes wildly a humped bull. Kōvalan could not know that it is a bad omen, because he is not a shepherd, but the son of a merchant.[12] Kōvalan's execution is considered to be indicated by this omen.

Professional augurs could foretell the future by the study of physiognomy. This method of divination too obtains in early Tamil religion. An augur enters the court of a Chera king when his younger

5. *Mullaippāṭṭu.*
6. *Silappadikāram*, p. 320, l. 10.
7. *Naṟṟiṇai*, v. 4.
8. *Silappadikāram*, p. 425, ll. 166-169.
9. *Naṟṟiṇai*, v. 169.
10. *Encyclopaedia of Religion*, vol. iv.
11. v. 140, ll. 1-3.
12. *Silappadikāram*, p. 422, ll. 100-101.

son is sitting on his lap. The heir-apparent to the throne, *Seṅkuṭṭuvan,* is sitting by the side of his father. The fortune-teller looks closely at the face of the younger prince and predicts that he would become a king.[13] Beautiful women decked in jewels are regarded as good omen.[14] Mishaps of man are believed to be an index of coming misfortune. The idea that a small mishap of any kind is a forerunner of a greater one is common to many primitive people.

The natives of Torres Straits, though skilled in dugong fishing, sometimes returns empty-handed with their harpoons broken, and this event is generally regarded as a mishap.[15] Nearly a similar incident is described in a poem of *Naṟṟiṇai.* A hunter aims an arrow at a stag which it misses. This is taken to be an ill-omen. He interprets the ill omen as indicating the presence of the angry god of the mountain and feels that if the rains fall, he would be assuaged.[16]

A kind of divination which may be described as voluntary obtained in the early Tamil period. It is called *virichchi* or seeking for a good word. When the army begins its campaign augurs are sent in advance of the army to study the omen of any chance good word.[17] Elderly women augurs too are employed for *virichchi.* In *Mullaip-pāṭṭu,* the consort of a king campaigning, unable to endure the pangs of separation, sends the matrons outside the town to get good words. It is described as follows:

> "The matrons scatter the paddy and *mullai* flowers and stand praying for the good word. (That way) comes a cowherdess leading by a rope a tender calf which calls to its mother. She consoles the calf by saying "your mother comes behind, being driven by cowherds with crooks. She will presently be with you".[18]

Here the good word is the chance utterance of the cowherdess, "she will presently be with you." That is interpreted as pointing to the

13. *Op. cit.,* p. 590, ll. 174-175.
14. *Naṟṟiṇai,* v. 40, l. 4-5.
15. *Encyclopaedia of Religion,* Vol. IV, p. 780.
16. v. 16.
17. *Tolkāppiam* : *Puṟattiṇai-iyal,* Sūtra, 58.
18. ll. 8-16.

early return of the king from war. Sometimes the paddy alone is thrown in water as a preliminary of watching for good word.[19]

One important form of involuntary divination, says Mr. H. J. Rose, "concerns the portents exhibited by the heavens, Eclipses, storms, and unusual atmospheric conditions would naturally be regarded from the earliest periods as manifestations of divine anger."[20] Identical beliefs have been held by the early Tamils. But, except in a single case, the interpretation of such abnormal phenomena is not clear. In a poem of *Puṟanāṉūṟu*, a poet observes that seven days before the death of the Chera king Māntaram Irumpoṟai, a star had fallen from the sky in the southerly direction.[21] Another instance is the flight of the planet Venus away from its ambit in the southerly direction which is said to have predicted the death of the chief Paṇṇan.[22] We understand from *Paṭṭinappālai* that the river Kauveri never dries up even if Venus flies south. This would negatively imply that the southward drift of the planet was a premonitary sign of the failure of rains.[23] Apart from this vagrancy of stars and planets, the failure of milk to solidify into curds, of butter to melt into ghee and similar uncommon occurrences are always portentous of evil outcome.[24] Miraculous happenings also are looked upon as ominous. In Madura, it is said that the doors of the temple of goddess, Koṟṟavai could not be opened at all and it was interpreted as being fraught with evil consequence for the king and people.[25]

Cases of the employment of mechanical means in the practice of the mantric art are also found in the Tamil country of the past. In cases of illness of children, the parents call in the female augur and consult her as to the cause of illness. Landtman, in his scholarly enquiry into origin of social inequality, observes that primitive man cannot "as a rule form proper conception of illness and he is equally at a loss before

19. *Puṟanāṉūṟu*, v. 280, ll. 6-17.
20. *Op. cit.*, p. 785.
21. v. 229, l. 12.
22. *Op. cit.*, v. 388.
23. ll. 1-5.
24. *Silappadikāram*, p. 441, ll. 11-16.
25. *Op. cit.*, p. 507, ll. 107-112.

the mystery of death."[26] So he attributes illness to the action of an evil spirit. Before the spirit is propitiated in order to cure the illness, it must be specifically known what spirit is the cause of the illness. This could be known only to those conversant with the mantric art. The augur thus called, she throws the keḷangu nuts and from their fall and the odd or even number that results she says such and such spirit has affected the patient.[27] Very often, *Vēlan*, the priest of Murugan, the red god of the hills, is consulted under such circumstances. His method of divination is *shamanist*. He dances with the spear in hand as if possessed by Murugan, and in a prophetic frenzy he makes utterances of an oracular character.[28]

Dreams have always been considered by all peoples of the world as premonitory glimpses into coming events specially sent by gods. Some interesting dreams of historical personages are actually on record in *Silappadikāram*. Certain dreams stage things shaping in the future faithfully as we find them in actual occurence. Certain other dreams are unmistakably portentous in as much as they leave behind some dread about the future the outlines of which are dim. Some dreams are characterised by symbolic happenings, by the interpretation of which alone one might obtain a foretaste of what is going to happen. In the *Silappadikāram,* just before the fall of the Pandya, his queen dreams a premonitary dream. She dreams that the sceptre and the parasol of sovereignty have toppled down to the dust, and that the bell of justice at the palace gate is sounding incessantly in an alarming manner. She sees in the dream a rainbow at night, and stars falling in daytime.[29] From these she understands that something dreadful is going to happen. The following is the description of the dream dreamt by Kaṇṇaki the heroine of *Silappadikāram.*

> " My heart trembles. In a dream my lord and I went to a great city. There the people uttered a word which stung me like a scorpion. I heard that some great harm had befallen my husband. I went to the king and disputed with him."[30]

26. *The Origin of the Inequality of Social Classes*, p. 116.
27. *Naṟṟiṇai,* v. 268.
28. *Ahanānūṟu,* v. 98.
29. p. 480, ll. 9-12.
30. p. 244, ll. 145-152.

At Madura, in the cowherds' quarter, Kōvalan too dreams a dream which is only replete with ill omen, whereas Kannaki's dream is a revelation of the future in vague outlines. Kōvalan dreams that his clothes are snatched from him and that he rides on the back of a tusked boar.[31] The commentator says that dreaming as riding on a boar and loosing one's clothes is portentous of death. In another work of classical Tamil literature, the poet says that the Cholas dreamed as tasting a fruit in the forest of the chief Alisi of Arcot, before their actual conquest of the country.[32] After waking up from a dream, the ancient Tamils would place some auspicious objects in the sight of the dreamer so that the evil consequences of the dream might not occur. When Pāṇḍimādēvi trembles at the remembrance of the terrible dream, her handmaidens place before her flower-garlands, sandal paste, fine silk and cotton fabrics, a box of betels and nuts and incense. What is more, as dwarfs, the hunch-backed, and mutes are regarded as auspicious, the queen is asked to look at them too.[33] If spectacles of ill omen are seen even in a reverie, they are considered portentous. Kiḷḷivaḷavan, a Chola King, is said to have seen in a reverie the sights of his teeth falling, of his smearing of oil on his head, and of the stand of weapons tumbling down.[34] This vision is said to have brought about his death.

Thus we find on a study of early Tamil literature that omens and such other superstitions occupied a large part of the life of the ancient Tamils.

31. p. 396, ll. 95-106.
32. *Naṛāiṇai*, v. 87, ll. 3-4.
33. *Op. cit.*, p. 481, ll. 16-21.
34. *Puṛanānūṛu*, 41, ll. 3-11.

Flora of Annamalainagar

BY

S. K. PILLAI, M.Sc.,
Lecturer in Botany,
Annamalai University.

WITH AN INTRODUCTION BY

DR. T. S. RAGHAVAN, M.A., PH.D., (LOND.), F.L.S.,
Professor and Head of the Department of Botany,
Annamalai University.

INTRODUCTION

India has few books on local flora and it is not always possible for Junior students in University classes to consult books like Hooker's "Flora of British India". Descriptions of local flora are a necessity, especially in seats of University instruction. Books on Flora of the Madras Presidency are very few, these being "Flora of the Presidency of Madras" by Gamble, "Flora of the Madras City and its immediate neighbourhood" by Mayuranathan and Fyson's "Flora of the South Indian Hill Stations". Another attempt at a description of local flora is that of Mr. Fyson who published short descriptive Bulletins of common plants of Madras. But, this did not go beyond a few stray families. These works are mainly descriptive, diagrams being very few. Even where diagrams are provided, they do not bring out clearly and completely, the morphology of the flower.

The flora of the area in which this University is situated has not been described till now and being an institution where advanced teaching in Botany is undertaken a description of the local flora was felt highly desirable. With this object in view, I requested Mr. S. K. Pillai, M.Sc., of this Department to undertake a compilation of the flora of the University area. He has readily taken up the work on hand and it is hoped to provide in instalments a comprehensive descriptive Flora of the local area. Descriptions in full are given and these are supplemented by diagrams, which bring out the floral morphology completely. But, since it is very difficult to give diagrams of each and every species described in the text, they have been limited to one species in each genus.

Books on 'Flora' do not generally give any information about histological details, which, if given, will be of great use to University students. The descriptions in this work, therefore, include some histological details with illustrative diagrammatic sketches.

Chromosome numbers are coming to play an increasingly important role in plant taxonomy. In order to be helpful to the modern cytotaxonomist, chromosome numbers wherever known, are also given as additional information.

Though the work has been got up mainly for the sake of University students, it is hoped that the diagrams given will easily enable even

others without any elaborate technical knowledge of the subject to use it in identifying plants without difficulty.

Hooker's "Flora of British India," Gamble's "Flora of the Presidency of Madras," Mayuranathan's "Flora of the Madras City" and Bailey's "Standard cyclopaedia of Horticulture" have been freely consulted. The chromosome numbers of plants are mainly based upon Gaiser's and Tischler's lists. Such numbers as are being reported in current numbers of Botanical Journals, as also those that are being determined in this laboratory, have also been incorporated.

BOTANICAL LABORATORY,
18th Feb. 1941.

T. S. RAGHAVAN,
Prof. of Botany.

RANUNCULACEAE

I. *Naravelia zeylanica. D. C. (Introduced)*

A climbing perennial shrub.

Leaves:—opposite, 3-5 foliate compound extipulate, the terminal leaflet generally transformed into a tripartite tendril which helps in climbing; leaflets ovate, slightly pubescent.

Flowers:—in axillary or terminal panicles, regular, hypogynous, bisexual with spirally arranged parts. ¾″ to 1″.

Sepals:—4, deciduous, petaloid, valvate.

Petals:—12, in two spirals of six, narrow and club-shaped, sepaloid, larger than the sepals, valvate.

Stamens:—numerous, the differentiation between the filament and anther being not very marked.

Ovary:—superior, of numerous free carpels, l-celled and one-ovuled, covered by means of hairs.

Fruit:—an aetario of achenes, each with the persistent highly developed having style which helps in dissemination.

Flowering time:—December to January.

Histological:—The stem exhibits the herbaceous type of arrangement of the vascular bundles in the young condition. The bundles, about 14-16 in number, are free from one another. Outside each vascular bundle is a strip of strengthening collenchyma tissue which is hypodermal in nature. Alternating with these collenchyma patches are found chlorenchyma tissue. The stem is slightly angular.

Secondary thickening is normal. The xylem vessels are of comparatively big bore which is typical of climbers.

Chromosome Number 2n=16.

II. *Clematis triloba D.C.* (*Introduced*).

A climbing perennial shrub.

Leaves:—opposite, trifoliate-compound exstipulate. The petioles after the leaflets have fallen, assume the function of the tendril and help in climbing. Leaflets ovate, slightly pubescent.

Flowers:—in axillary cymes, regular, hypogynous, with a single whorl of perianth and other parts arranged spirally, bisexual, 1″ to 1¼″.

Perianth:—of four lobes, petaloid and valvate.

Stamens:—numerous, arranged spirally.

Ovary:—superior, of many free carpels arranged spirally at the top of the thalamus, one-celled and one-ovuled. Style short and hairy.

Fruit:—an aetario of achenes, each crowned by the persistent hairy style which acts as a plume helping in distribution by wind.

Flowering time:—July to August.

Histological:—The stem is angular and at the angles are present patches of collenchyma tissue. The herbaceous type of disposition of vascular bundles is exhibited, the bundles being free and their number 6-10. Each bundle is covered on the outside by a tissue of hardbast. The xylem vessels are of comparatively big bore, which is characteristic of climbers.

Secondary thickening is normal.

III. *Clematis paniculata.* (*Introduced*).

A climbing shrub.

Leaves:—opposite, tri-to-pentafoliate compound, ex-stipulate. Leaflets often lobed, ovate-elliptic, glabrous.

Flowers:—in axillary and terminal panicles, regular, hypogynous, with a single whorl of perianth and other parts arranged spirally, bisexual, 1—1½″ across.

Perianth:—4, dull white, valvate.

Stamens:—numerous, arranged spirally.

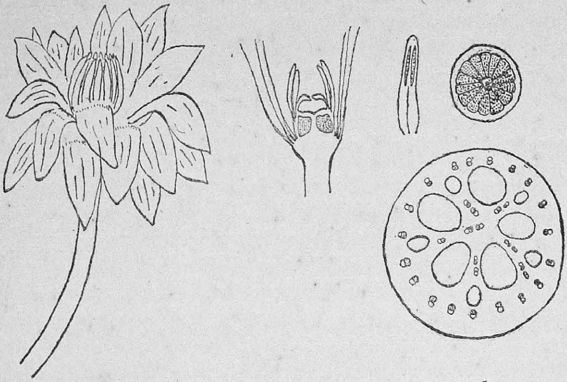
Ovary:—superior, of many free carpels arranged spirally at the top of the thalamus, one-celled and one-ovuled. Style hairy.

Fruit:—an aetario of achenes, each crowned by the persistent hairy style which acts as a plume helping in distribution by wind.

Chromosome number $2n=16$.

NYMPHAEACEAE

I. *Nymphaea Lotus. Linn, var, pubescens*



Large aquatic herbs with creeping rootstock.

Leaves:—borne on long stalk, orbicular, pubescent beneath, waxy above.

Flowers:—conspicuous, borne on the surface of water on a long stalk, actinomorphic, hypogynous, with numerous parts, arranged spirally, bisexual, white-rose in color 5″-6″.

Sepals:—4, free, petaloid inside, imbricate.

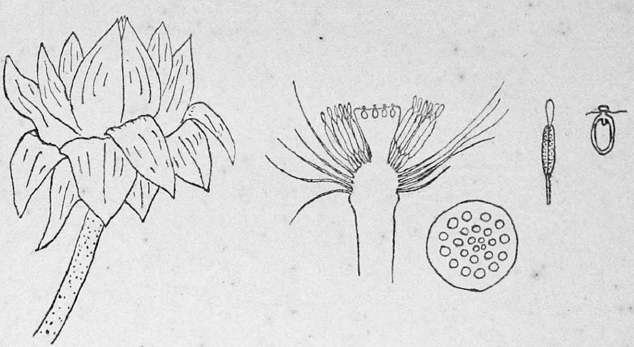
Petals :—∞, in many series, the inner successively transformed into stamens, polypetalous, twisted.

Stamens :—∞, in many spirals surrounding the thalamus cylinder, with petaloid filaments, anthers linear, narrow.

Ovaries:—many, in one series, sunk in the fleshy thalamus and fused with it forming a many celled syncarpous ovary with axile placentation, crowned by the connate radicating furrowed stigmas. Ovules numerous.

Histological:—The petiole in section shows a number of large air chambers with the vascular bundles distributed all through the section in a haphazard manner.

II. *Nelumbium speciosum, Willd.*



Large acquatic prickly herb with creeping rhizome

Leaves:—large, orbicular, raised on the surface of water by petioles which have prickles on the outside and large air spaces inside. The blade has a thick waxy cuticle on the upper surface.

Flowers :—Rose-red, very conspicuous, actinomorphic, hypogynous, with numerous parts arranged spirally, bisexual 6″-8″.

Sepals:—4, caducous, petaloid inside, free, imbricate.

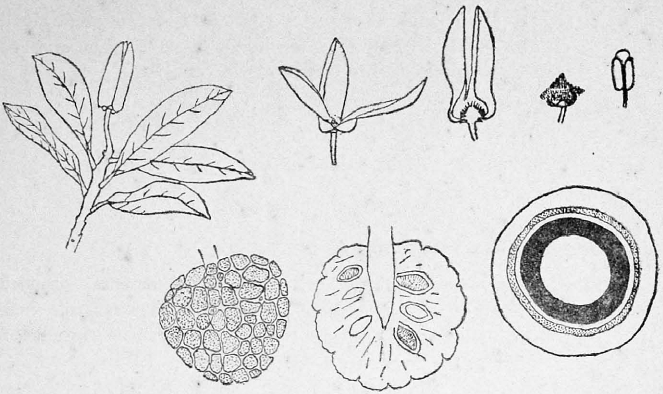
Petals:—numerous, in many spirals, caducous, twisted.

Stamens:—numerous, in many spirals, with a short slender stalk, long anther-lobes and a club-shaped connective.

Gynoecium :—of numerous carpels, free from one another and one-celled but all sunk in the flat top of the obconically prolonged thalamus. Styles very short, stigmas terminal, dilated. Ovules 1-2 pendulous carpels ovoid, loosely placed in the cavities of the enlarged spongy torus.

ANONACEAE

I. *Anona squamosa Linn, DC.*



A small tree.

Leaves :—simple, bifarious, oblong, glabrous.

Flowers:—solitary, terminal, trimerous, with spirally arranged stamens and carpels, hypogynous, actinomorphic, bisexual, 1½″ to 2″.

Sepals :—3, small and inconspicuous valvate.

Petals:—3, large and fleshy, valvate, with concave base, ¾″ to 1″.

Stamens:—numerous, arranged spirally, anther cells narrow, top of the connective enlarged and ovoid.

Ovary:—superior, of numerous free carpels, arranged spirally and closely aggregated in the form of a cone at the top of the convex thalamus, one-celled and one-ovuled.

Fruit:—an aggregate of berries, the pulp being formed by the cohesion of the walls of many carpels. Edible.

Seeds:—with ruminate endosperm.

Flowering time:—May to August.

Histological:—The stem exhibits the woody type of disposition of vascular bundles. The bundles are numerous and they are closely placed with narrow medullary rays that they appear in the form of a ring. Outside the individual bundle is a small patch of hardbast, which thus appears in the form of an incomplete ring.

Secondary thickening is normal.

II. *Anona reticulata Linn., D.C.*

Small Trees.

Leaves:—Simple, bifarious, oblong, glabrous.

Flowers:—solitary, axillary or terminal, sometimes grouped together in two or three. Regular, hypogynous, bisexual, with numerous stamens and carpels arranged spirally on the conical thalamus; 2—3″ in diameter.

Sepals:—three, smaller than the petals, valvate.

Petals:—three, fleshy, valvate.

Stamens:—numerous, arranged spirally.

Ovary:—apocarpous, superior, the numerous free carpels being arranged spirally on the top of the conical thalamus. Style short.

Fruit:—an aggregate of berries, the walls of the individual berries becoming fleshy and coalescing together to form the edible portion.

Seeds:—with ruminate endosperm.

Flowering time:—September to October.

III. *Polyalthia longifolia B and H.*

A lofty tree, with slender branches.

Leaves:—simple, bifarious, lanceolate with wavy margin, glabrous.

Flowers:—sub-umbelled, pedicels 1—2″ long, hypogynous, actnio-morphic, bisexual, with numerous stamens and carpels arranged spirally on the top of the convex thalamus 1½″ to 2″.

Sepals :—3, free, valvate, ½″ to $\frac{5}{6}$″.

Petals:—6, in two series of 3 each, elongated, valvate, ¾″ to 1″.

Stamens:—numerous, arranged in several spirals, with a short filament and the connective flat and ovoid at the top.

Ovary:—superior, of numerous carpels, arranged in several spirals on the top of the convex thalamus forming a cone; each carpel with a small style and 1—2 ovules.

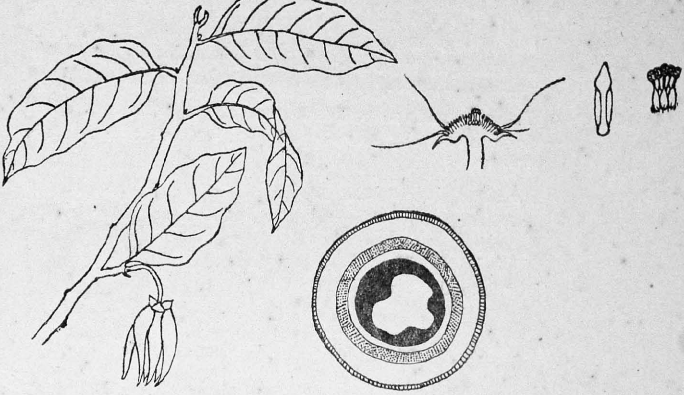
Fruit:—an aggregate of berries.

Flowering time:—April to June.

Histological:—The arrangement of vascular bundles follows the woody type, there being numerous vascular bundles which are closely arranged in a ring with very narrow medullary rays. This ring is surrounded on the outside by another of hardbast.

Secondary thickening is normal.

IV. *Cananga odorata. H.*



A moderately sized tree.

Leaves:—simple, bifarious, oblong, lanceolate with wavy margin, glabrous.

Flowers:—large, yellow, solitary or clustered together in twos or threes on short axillary peduncles, hypogynous, actinomorphic, bisexual, with numerous stamens and carpels arranged on the top of the convex thalamus, 2½″ to 3″ in diameter, sweet scented. Pedicels 1″, recurved, bracteate and bracteolate.

Sepals:—3, triangular, ¼″ to ½″, valvate.

Petals:—6, in two whorls of 3 each, inner smaller, long, flat, 1¼″ to 1½″ long, valvate.

Stamens:—numerous, arranged in several spirals with short filaments and the connective conically prolonged at the tip.

Ovary:—Composed of 9—12 free carpels, with short styles and capitate stigmas which fuse together to form one mass, with numerous seeds in each carpel.

Fruit:—an aggregate of berries.

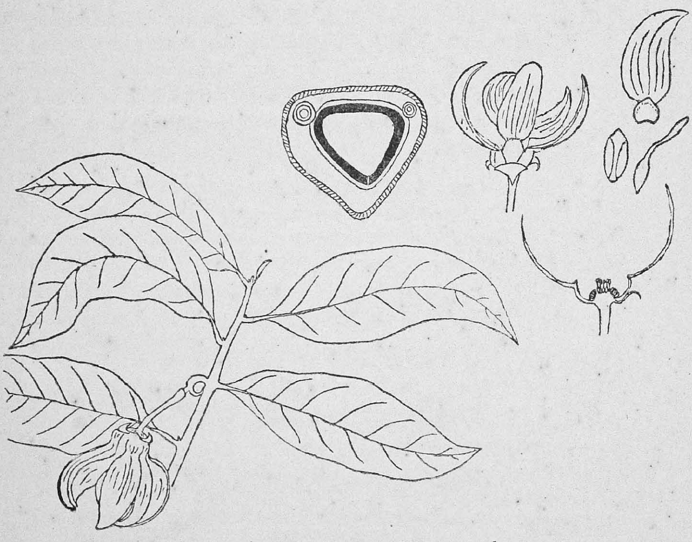
Flowering time:—August to October.

Histological:—The woody type of arrangement of V. Bs. is exhibited by the young stem, there being numerous V. Bs.., closely arranged together with very narrow medullary rays. The xylem is broader at certain places and narrow at others. The phloem is surrounded by a ring of stone cells which form the hardbast. An hypodermal tissue of collenchyma is also found.

In the pith at certain places are found transverse patches of sclerenchyma cells. There are also mucilage canals in the cortex and pith.

Secondary thickening is normal.

V. *Artabotrys odoratissimus, R. Br., (Introduced).*



A highly branching shrubby straggler.

Leaves:—Simple, distichous, oblong lanceolate, glabrous, 6—8″×1½—2″ with acuminate tip and wavy margin.

Flowers:—usually solitary on woody, usually hooked, recurved branches, hypogynous, actinomorphic, bisexual, greenish yellow in colour, highly scented, 3—4″ across.

Sepals:—three, triangular, 0·2—0·3″ long, valvate.

Petals:—Six, in two whorls of three each, fleshy, 1½—2″ long, greenish yellow, concave at base, the inner whorl shorter than the outer.

Stamens:—numerous, arranged spirally on the thalamus, with short filaments.

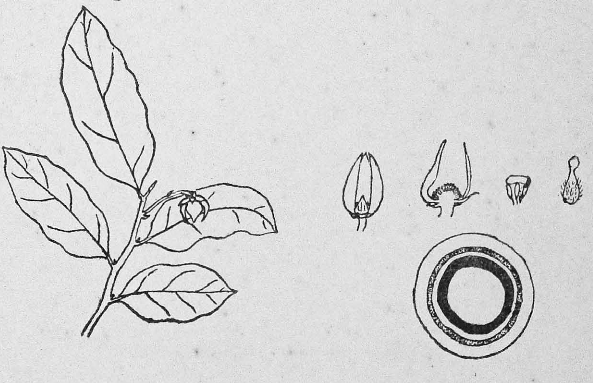
Ovary:—superior, polycarpellary apocarpous, the numerous carpels being arranged spirally on the top of the conical thalamus.

Fruit:—an aggregate of berries.

Flowering time:—September to November.

Histological:—The stem exhibits the woody type of arrangement of vascular bundles. Outside the ring of phloem is a ring of hardbast tissue. Just beneath the epidermis is a ring of collenchyma tissue also. Secondary thickening is normal. Leaf trace bundles are found in the cortex traversing whole internodes.

VI. *Uvaria, subrependa. Wall.*



A shurb with slender branches, glabrous in older parts and slightly pubescent in young parts.

Leaves:—membranous, oblong-obovate, distichous, simple, pubescent beneath when young, 4—6″ by 1 to 1½″; peduncles slender ¾ to 1″ long.

Flowers:—borne extra-axillary, at the middle of an internode. Peduncles bearing 2, rarely more, flowers, in the axils of small, concave bracts. Regular, hypogynous and bisexual, slightly yellow in colour.

Sepals:—three, small, valvate, purplish coloured triangular 0·1 to 0·2″ across.

Petals:—three, triangular, fleshy, ¾—1″, valvate; yellowish.

Stamens:—numerous, arranged spirally.

Ovary:—Superior, of numerous, free, carpels which are arranged spirally on the top of the conical thalamus.

Fruit:—generally not developed.

Flowering time:—September to November.

Histological:—The stem exhibits the woody type of arrangement of vascular bundles. There is a very narrow ring of hardbast outside the phloem. Secondary thickening is normal. Leaf trace bundles are seen in the cortex which are found to extend throughout the internode.

Studies in Sanskrit Texts on Temple Architecture with Special Reference to the Tantrasamuccaya

By

N. V. Mallayya

STANZA 61.

Intermediate Roofing.

This stanza lays down the method for the construction of the roofing of the second tala when a third tala is to be raised above the second tala. The furnishing of an intermediate roofing is an indispensable and structural necessity in places like Kerala, where the seasonal rainfall is heavy during the large part of the year. To build the third Tala, an internal wall (the same which is raised for the construction of the second tala) should be raised. Now a roofing has to be given to the second tala, and, in order to construct the same, rafters have to be fixed. The 'Bāhyottara' and the 'Kūṭa' which constitute the support for fixture of both the lower and upper end of rafters are elements which will be absent when an intermediate roofing comes to be constructed. The Vivaraṇakāra thus observes: [569]

" बाह्योत्तरं नाडीगृहोत्तरमूर्ध्वकूटं च एतत्प्रथमोत्तरतलयोरेव भवति ॥"

The *'Bāhyottara'* or external 'uttara' is essential for securing the lower end of the rafters, and the *'Kūṭa'* is necessary for securing their upper extremity. In such a circumstance as this, when a third tala is under construction, some device should be employed for the discharge of the function of the two elements 'Bāhyottara' and 'Kūṭa', which are absent from the second tala. The present stanza deals with such a device. Above the wall of the second tala, whose breadth at the top is less than that at the base by one-eighth, place an uttara. Secure the upper extremity of the rafters into this Uttara. Then, project outside, the ends of the cross-beams (*Tulās*) which enter into the making of the ceiling of the first tala (i.e. beams of the lower tala which are situated where the first tala ends and the second tala begins). On these beam-ends plant posts (i.e. struts). Fix the lower extremity of the rafters on these struts raised to give the rafters support from beneath. These struts are called *'Tulāsthapādas'* and are explained by the author of the Vivaraṇa in the words :—

569. *Tantrasamuccaya Vivaraṇa* (Ms. R. No. 1994. G.O.M.L., Madras).

"तुलास्थपादेष्विति—पूर्वतलतुलासूपरितलपादान्वितं वितनुयात् । तेषु पादेषु लुपां निवेशयेत् ॥"[570]

The length of the rafters suspended below from the Uttara will be half the height of the pillar of the tala for which the intermediate roof is being added. The *Tulāsthapādas*, according to a Kerala commentary,[571] are curved or bent, and in this design they lose the upright feature of a regular pillar. The curve which is given to project or extend outwards lends expansion of space between the posts and the Gala, and the large part of the Gala is thus thrown open to the gaze of the spectator. The curved posts which support the lower end of the rafters of the intermediate roof thus avoid what would otherwise result in a clouding of the ornamentations of the Gala through upright posts. Moreover, curve is a graceful design in itself and as such serves in its own way in the scheme of architectural beautification. The type of roofing described here will be most successfully and gracefully worked out when the material used is timber and as a matter of fact instances are not rare in Malabar where roofing of the above kind is found easily constructed in wood.

STANZA 62.

Jāti Prāsādas.

In the previous verse, the author has described the process of construction of the intermediate roof when a third tala is to be made. The details pertaining to the further talas are not given in the succeeding portion probably because such a treatment was not called forth by popular demand. Mahāprāsādas, as we have noted already, are rarely if ever met with in Kerala. The author therefore, in the following section, switches off to a mere enumeration of the number of floors and the odd and even measures which characterise the Mahāprāsādas. Mahāprāsādas are divided into four classes—*Jāti*, *Chandas*, *Vikalpa* and *Ābhāsa*—from the point of view of their measurement and the number of floors that they possess. In the present stanza, the author deals with the *Jāti* class. Prāsādas coming under the *Jāti* class will possess talas beginning with three and ending with twelve. (If we are to render the term 'Tala' by the expression 'floor', then, it must be borne in mind

570. *Ibid.*
571. Ms. R. No. 4. 128 Govt. Oriental Mss. Library, Madras.

that the number of floors is inclusive of the ground-floor). The *Jāti* class admits measure from 11 to 70 cubits. There are altogether 60 varieties of measure, 30 being odd and 30 even. The odd measures begin with 11 cubits and end with 69, and the even ones begin with 12 and end with 70. The odd measures 11, 13, and 15 are further characterised as Adhama (lowest), Madhyama (middling) and Uttama (highest) types respectively and the even measures that are similarly characterised as belonging to the Adhama, Madhyama and Uttama varieties respectively are 12, 14 and 16. This statement relates to the measures of the 3rd floor. The same method should be extended to the classification of measures of other floors into Uttama, Madhyama and Adhama types. The twelve floors (talas) with their odd and even measures of Uttama, Madhyama and Adhama types, will be arranged in the following table given below:—

No. of Talas.	Odd Measures.			Even Measures.		
	Adhama	Madhyama	Uttama	Adhama	Madhyama	Uttama
III.	11	13	15	12	14	16
IV.	17	19	21	18	20	22
V.	23	25	27	24	26	28
VI.	29	31	33	30	32	34
VII.	35	37	39	36	38	40
VIII.	41	43	45	42	44	46
IX.	47	49	51	48	50	52
X.	53	55	57	54	56	58
XI.	59	61	63	60	62	64
XII.	65	67	69	66	68	70

Each of the 10 classes of Talas (III to XII), it will be noted here, admits of 3 odd measures and 3 even measures, and the total varieties under each class of Talas amount to six. So the ten classes of Talas (from III to XII) admit of a total of 60 varieties. In the last quarter of the stanza the author prescribes the height that is generally given to

these 60 varieties coming under the *Jāti* class. It is as stated below: Divide the vyāsa (breadth) of the Prāsāda into seven parts, and add three parts thereof to the breadth prescribed. This will be the height. In other words the height is $1\frac{3}{7}$ of the breadth. The commentator illustrates this rule with reference to the *'Dvādaśatalaprāsāda'*. Its (uttama) breadth prescribed is 70 cubits. Divide it into 7 parts and add 3 parts thereof to the breadth. It will give 100 cubits. The height of the Dvādaśatalaprāsāda of the uttama variety will consequently possess a height of 100 cubits. The commentator remarks[572]:—

"सप्ततिकरे प्रासादे शतकर उत्सेध इत्यादिक्रमेणावगन्तव्या इत्यर्थः ॥"

It will be recalled in this connection that the author has laid down four alternative proportions of height to all classes of Prāsāda in stanza 7, and they are: Height—$1\frac{3}{7}$ B, 1½ B, 1¾ B, and 2 B. Of these four alternatives, it will be in consonance with good taste to select 2 B and prescribe it for the Alpaprāsāda. With regard to Mahāprāsāda, however, it might be remarked that, by virtue of its large measure, it does not necessarily require the last of the alternative proportions to acquire an imposing character. The first alternative $1\frac{3}{7}$ itself will suffice for its height, and hence the author says that the generally accepted height for the 60 varieties of *Jāti* Prāsāda is $1\frac{3}{7}$ B.

Other authorities, such as Pitāmaha, Kāśyapa, Gurudeva and Maya also deal with the different dimensions of the *Jāti* class of Pāsādas. They give the varied measures of breadth, height and the number of floors that characterise the Jāti and other classes of structure. Relevant extracts dealing with the classification of Prāsādas from these various authorities will serve to amplify the information contained in our text. A general tone of agreement is noticeable in the treatment of the topic by these several writers.

Pitāmaha, who is often found quoted in the *Gurudevapaddhati*, is quoted in the present context by the commentator Śaṅkara.[573] With reference to the *Jāti* class Pitāmaha states as follows:—

"हस्तसप्ततिविस्तारं शतहस्तोच्छ्रितं भवेत् ।
उत्तमं द्वादशतलं विमानं जातिरुच्यते ॥

572. *Tantrasamuccaya* with *Vimarśinī* (T.S.S. Ed.), Part I, page 87.
573. *Ibid.*, pp. 87, 88.

भवेन्नवतिषष्टिभ्यां त्र्युत्तराभ्यां यथाक्रमम् ।
उच्चविस्तारयोः श्रेष्ठमेकादशतलं गृहम् ॥

उन्नतं चतुरशीत्या सप्तपञ्चाशदायतम् ।
श्रेष्ठं दशतलं धाम विज्ञेयं जातिसंज्ञितम् ॥

उच्छ्रितं पञ्चसप्तत्या चैकपञ्चाशदायतम ।
नवभौमं विमानं तु विज्ञेयमतिशोभनम् ॥

षट्षष्ट्युच्चं तथा पञ्चचत्वारिंशत्समायतम् ।
हस्तानां कीर्तितं धाम जातिरष्टतलं शुभम् ॥

सप्तपञ्चाशदुत्तुङ्गं नवत्रिंशत्करायतम् ।
सप्तभौमं विमानं तु जात्यं सर्वफलप्रदम् ॥

त्रयस्त्रिंशत्करव्यासं चत्वारिंशद्भिरुत्तरैः ।
नवभिश्चोच्छ्रितं धाम षट्तलं परिकीर्तितम् ॥

नवत्रिंशत्करोत्तुङ्गं सप्तविंशत्करायतम् ।
पञ्चभौमं गृहं प्रोक्तं जातिभेदसमुद्भवम् ॥

त्रिंशता चैकविंशत्या तुङ्गव्यासं चतुस्तलम् ।
एकविंशत्करोत्तुङ्गं दशपञ्चकविस्तृतम् ॥

त्रिभौमं भवनं प्रोक्तं मुख्यं जातिसमुद्भवम् ।
एवं त्रितलमारभ्य यावद्द्वादशभूमिकम् ॥

उक्तमानात् प्रतितलं ह्रासयेद् द्विकरं क्रमात् ।
मध्यमानि विमानानि भवन्तीह दश क्रमात् ॥

मध्येभ्यो द्विकरह्रासात् कनिष्ठानि पृथक् क्रमात् ।
संभवन्ति विमानानि तिमिरारितलादिह ॥

अथवा युग्महस्तैस्तु षोडशादिक्रमेण तु ।
सप्तत्यन्तर्विमानानि त्रितलादीनि वै दश ॥"

Gurudeva[574] closely follows Pitāmaha when he states:

"अथ द्वादशभौमादि यावत् तु त्रितलं भवेत् ।
प्रोक्तानां च विमानानामुत्तमादिप्रभेदतः ॥
उत्सेधव्यासमानं तु हस्तैः पृथगिहोच्यते ।
तत्रादित्यतलं श्रेष्ठं शतहस्तोच्छ्रितं भवेत् ॥
हस्तसप्ततिविस्तारं मुख्यं जात्यपि च क्रमात् ।
त्रिषष्टिहस्तविस्तारं त्रिनवत्युन्नतं तु यत् ॥
उत्तमेन तु मानेन स्यादेकादशभूमिकम् ।
तथा चतुरशीत्युच्चं सप्तपञ्चाशता ततम् ॥
दशभौमं स्मृतं धाम श्रेष्ठमानेन शोभनम् ।
पञ्चसप्ततितुङ्गं यदेकपञ्चाशता ततम् ॥
नवभौमं तु तन्मुख्यं यथायुक्ति नियोजितम् ।
उच्चं षडधिकं षष्ट्या चत्वारिंशच्च पञ्च च ॥
कराणां विस्तृतं धाम भवेदष्टतलं शुभम् ।
सप्तपञ्चाशदुत्तुङ्गं त्रिंशता नवकेन च ॥
कराणां विस्तृतं धाम सप्तभौमं प्रकीर्तितम् ।
त्रयस्त्रिंशत्करव्यासं चत्वारिंशत्करैरपि ॥
नन्दहस्तैश्च यत्तुङ्गं पञ्चभौमं तु तद्भवेत् ।
त्रिंशता चैकविंशत्या तुङ्गव्यासं चतुस्तलम् ॥
प्रकृत्या चातिशक्वर्या त्रिभौमं तुङ्गविस्तृतम् ।
एवं त्रितलमारभ्य यावद् द्वादशभूमिकम् ॥
उक्तमानात् प्रतितलं ह्रासयेद् द्विकरं क्रमात् ।
मध्यमानि विमानानि भवन्तीह दश क्रमात् ॥
तद्वन्मध्यविमानानां ह्रासेन द्विकरं पृथक् ।
कनिष्ठादिविमानानि सिद्ध्यन्त्या जगतीतलात् ॥

574. *Gurudevapaddhati* (T.S.S. Ed.), Uttarārdha, Pat. XXX, Sts. 1-13.

अथवा युग्महस्तैस्तु विकारकरमादितः ।
सप्तम्यन्तं विमानानि जात्यादि प्रभवन्ति हि ॥
तान्यपि त्रितलादीनि भवन्त्यर्कतलान्तकम् ॥"

The views of Pitāmaha and Gurudeva may be tabulated as follows:—

Pitāmaha.			Gurudeva.		
Tala No.	Breadth.	Height	Tala No.	Breadth.	Height
12	70	100	12	70	100
11	63	93	11	63	93
10	57	84	10	57	84
9	51	75	9	51	75
8	45	66	8	45	66
7	39	57	7	39	57
6	33	49	0	0	0
5	27	39	5	33	49
4	21	30	4	21	30
3	15	21	3	15	21

These are the proportions prescribed for the Jāti buildings which have talas from 3 to 12, and which belong to the uttama type. In each class of talas the middling will be less by 2 cubits and the lowest still less by 2 cubits.

Structures having talas from 4 to 12, and having 27 odd alternative measures for its breadth, beginning with 17 cubits and ending with 69, and 27 even alternative measures, beginning with 18 and ending with 70, are described as the *Jāti* class in the *Kāśyapaśilpa*. There also under each Tala class there are three kinds of measure, belonging to the best, middling and lowest type. Corresponding to the breadth prescribed, there is also laid down height, the odd starting with 23 cubits, and the

even with 27, the increase being by 3 cubits. The table given below will illustrate the view of Kāśyapa:—

No. of talas	Odd Measures:—Breadth: Height.			Even Measures:—Breadth: Height.		
	Adhama	Madhyama	Utkṛṣṭa	Adhama	Madhyama	Utkṛṣṭa
4	17:23	19:26	21:29	18:27	20:30	22:33
5	23:32	25:35	27:38	24:36	26:39	28:42
6	29:41	31:44	33:47	30:45	32:48	34:51
7	35:50	37:53	39:56	36:54	38:57	40:60
8	41:59	43:62	45:65	42:63	44:66	46:69
9	47:68	49·71	51:74	48:72	50:75	52:78
10	53:77	55:80	57:83	54:81	56:84	58:87
11	59:86	61:89	63:92	60:90	62:93	64:96
12	65:95	67:98	69:101	66:99	68:102	70:105

This table is prepared in accordance with the directions furnished in the following lines of Kāśyapa[575] on *Jāti Harmya*:—

" जातिहर्म्यमथो शृणु ।
सप्ताष्टादशहस्तादि द्विद्विहस्तविवर्धनात् ॥ १७ ॥
सप्ताशीतीति (सप्ततीति ?) हस्तान्तं सप्तविंशतिसंख्यया ।
चतुर्भूमिं समारभ्य यावदर्कतलं प्रति ॥ १८ ॥
तावद्विस्तारमाख्यातमुत्सेधं शृणु सुव्रत ।
त्रिसप्तविंशद्धस्तादित्रित्रिहस्तविवर्धनात् ॥ १९ ॥
यावदाशतहस्तान्तमुच्चं प्रागिव संख्यया ।
अधमं मध्यमोत्कृष्टं व्यासोच्चं च क्रमोदितम् ॥
एवं जातिविमानं तु सप्तविंशतिधोदितम् ॥ २० ॥"

Similar direction is given in the *Mayamata*,[576] but the name of the class is not mentioned. Compare the lines from Maya quoted below:

575. *Kāśyapaśilpa* (Ānandāśrama Series) Paṭala XXIV, 17-21.
576. *Mayamata* (T.S.S. Ed.), XI, 10(2)—13(1).

" सप्ताष्टाधिकपङ्क्त्यादि द्विद्विहस्तविवर्धनात् ॥
आसप्ततेश्चतुर्भूम्यादीनि त्रीणि मतानि च ।
सप्तविंशतिभेदानि द्वादशान्तान्यनुक्रमात् ॥
त्रिचतुर्विंशतिरत्नेर्याविच्छतकरान्तकम् ।
त्रित्रिहस्तविवृद्ध्या तु त्रिनवोत्सेधमिष्यते ॥
एवमुत्कृष्टमानेषु श्रेष्ठमध्याधमं भवेत् ॥"

STANZAS 63 & 64.

Chandas, Vikalpa, Ābhāsa.

The 'Chandas', 'Vikalpa' and 'Ābhāsa' Prāsādas are referred to in these stanzas. The *Chandas* class will have from 4 to 12 talas. Each of the nine classes of talas will possess 6 different types of measures, three odd and three even, from the point of view of the Uttama, Madhyama and Adhama variation. The odd measures begin with 13 cubits and end with 65, and the even ones begin with 14 cubits and end with 66. The alternatives of Chandas will be 27 under the odd measure type and 27 under the even measure type, and the total number of alternatives constituted will be 54.

Similarly, on the basis of the odd and even measures beginning with 9 and 10 cubits and ending with 55 and 56 cubits, and talas beginning with 4 and ending with 12, *Vikalpa* Prāsādas will be of 48 different types. Beginning with the odd and even measures of 11 and 12 cubits and ending with 47 and 48 cubits, *Ābhāsa* Prāsādas will have from 4 to 12 talas. It will noted in this connection that, except in the 12 Tala type, the rest in Ābhāsa Prāsāda will have only the Uttama and Adhama variation. Chandas and Vikalpa, on the other hand, admit of all the three variations of Uttama, Madhyama and Adhama, and hence each Tala type, beginning with 4 and ending with 12, in Chandas and Vikalpa will allow 6 alternative measures. Thus *Chandas* will have a total of 54 varieties; *Vikalpa*, 48; and *Ābhāsa*, 38. Stanza 64 gives direction to this effect. Here (i.e. in the Ābhāsa), says the author, the Four Tala type onwards up to the Eleven Tala type (both inclusive), will have four varieties each; the last, namely, the 12th Tala type, will have six

varieties of Adhama, Madhyama and Uttama. The author, then, in the last quarter of this stanza sums up the section with the enumeration of the total types under each category. Thus he says, in the *Jāti* class, there are 60 types from the point of view of cubit-measures, in the *Chandas* 54, in the *Vikalpa* 48, and in the *Ābhāsa* 38. The tables given below will illustrate the 3 classes—Chandas, Vikalpa and Ābhāsa—as described by the author:—

CHANDAS (54 VARIETIES 9×6)

Tala class	Odd measure types			Even measure types.		
	Adhama	Madhyama	Uttama	Adhama	Madhyama	Uttama
4 talas	13	15	17	14	16	18
5 talas	19	21	23	20	22	24
6 talas	25	27	29	26	28	30
7 talas	31	33	35	32	34	36
8 talas	37	39	41	38	40	42
9 talas	43	45	47	44	46	48
10 talas	49	51	53	50	52	54
11 talas	55	57	59	56	58	60
12 talas	61	63	65	62	64	66

VIKALPA (48 VARIETIES 8×6).

Tala class	Odd measure types			Even measure types.		
	Adhama	Madhyama	Uttama	Adhama	Madhyama	Uttama
5 talas	9	11	13	10	12	14
6 talas	15	17	19	16	18	20
7 talas	21	23	25	22	24	26
8 talas	27	29	31	28	30	32
9 talas	33	35	37	34	36	38
10 talas	39	41	43	40	42	44
11 talas	45	47	49	46	48	50
12 talas	51	53	55	52	54	56

ĀBHĀSA (38 VARIETIES 9×4=36+2=38)

Tala class	Odd measure types			Even measure types.		
	Adhama	Madhyama	Uttama	Adhama	Madhyama	Uttama
4 talas	11	..	13	12	..	14
5 talas	15	..	17	16	..	18
6 talas	19	..	21	20	..	22
7 talas	23	..	25	24	..	26
8 talas	27	..	29	28	..	30
9 talas	31	..	33	32	..	34
10 talas	35	..	37	36	..	38
11 talas	39	..	41	40	..	42
12 talas	43	45	47	44	46	48

Our author's treatment of 'Chandas' and 'Vikalpa' is in entire agreement with the description of the same found in the *Kāśyapaśilpa* and the *Mayamata*. In the latter, however, additional information pertaining to the height is furnished.

Kāśyapa states :[577]—

"छन्द्मानमथो श्रृणु ।
त्रिचतुर्दशहस्तादि द्विद्विहस्तविवर्धनात् ॥
पञ्चषट्षष्टिहस्तान्तं व्यासं वै सप्तविंशतिः ।
वेद्भूमिं समारभ्य भानुभूमावसानकम् ॥
अधमं मध्यमोत्कृष्टं मानानि स्युस्तलं प्रति ।
सप्ताष्टादशहस्तादि त्रित्रिहस्तविवर्धनात् ॥
पञ्चषण्णवतिर्यावदुच्चं प्रागिव सङ्ख्यया ।
(अधमं मध्यमोत्कृष्टं तुङ्गभेदतलं प्रति ॥)
छन्दमेवं समाख्यातम् ॥"

577. *Kāśyapaśilpa*, XXIV, 13-16 (Ānandāśrama Series); also vide TS. (T.S.S. Ed. Part I, p. 89).

Maya observes:[578]—

" त्रिचतुष्पङ्क्तिहस्तादि द्विद्विहस्तविवर्धनात् ॥
पञ्चषट्षष्टिहस्तान्तं सङ्ख्यया पूर्वसंस्कृतिः ।
चतुस्तलविमानादि द्वादशान्तं विधीयते ॥
सप्ताष्टपङ्क्तेरारभ्य त्रित्रिहस्तविवर्धनात् ।
पञ्चषण्णवतिर्यावदुच्चं प्रागिव सङ्ख्यया ॥
श्रेष्ठमध्यकनिष्ठं स्यादेवं मध्यक्रमेषु च ॥"

Chandas as described in these lines may be illustrated in the following table:—

CHANDAS 54 VARIETIES (27 ODD AND 27 EVEN)
BREADTH : HEIGHT

No. of talas	Odd Measures			Even Measures		
	Adhama B:H.	Madhyama B:H.	Uttama B:H.	Adhama B:H.	Madhyama B:H.	Uttama B:H.
4	13:17	15:20	17:23	14:18	16:21	18:24
5	19:26	21:29	23:32	20:27	22:30	24:33
6	25:35	27:38	29:41	26:36	28:39	30:42
7	31:44	33:47	35:50	32:45	34:48	36:51
8	37:53	39:56	41:59	38:54	40:57	42:60
9	43:62	45:65	47:68	44:63	46:66	48:69
10	49:71	51:74	53:77	50:72	52:75	54:78
11	55:80	57:83	59:86	56:81	58:84	60:87
12	61:89	63:92	65:95	62:90	64:93	66:96

The description of 'Vikalpa' found in the *Kāśyapaśilpa* and the *Mayamata* likewise supports the statement of our author. Thus Kāśyapa says:[579]—

578. *Mayamata* (T.S.S. Ed.), XI, 13(2)—15.

579. This text of Kāśyapa is quoted from the commentary of Śaṅkara, where Śaṅkara quotes it in support of the author's text. The last two lines are found missing in the Edition of the *Kāśyapaśilpa* of the Ānandāśrama Series. Vide *Kāśyapaśilpa*, Paṭ. XXIV, Sts. 8-12.

"विकल्पमधुना शृणु ।
नवपङ्क्तिकरात् पञ्चषट्पञ्चाशत्करान्तकम् ॥
द्विद्विहस्तविवृद्ध्या तु चतुर्विंशतिसङ्ख्यया ।
पञ्चभूमिं समारभ्य यावदर्कतलान्तकम् ॥
अधमं मध्यमोत्कृष्टं त्रयो भेदास्तलं प्रति ।
सप्ताष्टादिकपङ्क्त्यादि त्रित्रिहस्तविवर्धनात् ॥
षट्सप्ताधिकाशीत्यन्तमुच्चं प्रागिव सङ्ख्यया ।"

Compare the lines from the *Mayamata* given below:[580]—

"नवपङ्क्तिकरात् पञ्चषट्पञ्चाशत्करान्तकम् ॥ १६ ॥
द्विद्विहस्तविवृद्ध्या तु चतुर्विंशतिसङ्ख्यया ।
पञ्चादिद्वादशान्तानां हर्म्याणां विपुलं क्रमात् ॥ १७ ॥
सप्ताष्टनवभूमानां धाम्नामुक्तप्रमाणतः ।
युञ्ज्याद् द्वादशभूम्यन्तं विमानं मानविद्वरः ॥"

The following table will serve to illustrate the text:—

No. of Talas	Odd Measures B:H:			Even Measures B:H.		
	Adhama	Madhyama	Uttama	Adhama	Madhyama	Uttama
5 tala class	9:17	11:20	13:23	10:18	12:21	14:24
6 tala class	15:26	17:29	19:32	16:27	18:30	20:33
7 tala class	21:35	23:38	25:41	22:36	24:39	26:42
8 tala class	27:44	29:47	31:50	28:45	30:48	32:51
9 tala class	33:53	35:56	37:59	34:54	36:57	38:60
10 tala class	39:62	41:65	43:68	40:63	42:66	44:69
11 tala class	45:71	47:74	49:77	46:72	48:75	50:78
12 tala class	51:80	53:83	55:86	52:81	54:84	56:87

Total= 48 varieties.

580. *Mayamata* (T.S.S. Ed.), Ch. XI, 16(2)—18; (also vide the *Tantrasamuccaya,* Part I, p. 90 (T.S.S. Ed.)

With regard to the *Ābhāsa Prāsāda* the author's direction is in agreement with the direction given by Pitāmaha and Gurudeva. Thus Pitāmaha observes:[581]—

"एकादशकरासप्तचत्वारिंशत्करातते ।
द्विहस्तवर्धनात् प्राग्वदूनविंशतिसङ्ख्यया ।
चतुर्भौमादर्कभौममाभासाख्यानि तानि वै ॥"

19 odd measures and 19 even measures make up a total of 38 different measures. The same lines are found in the *Gurudevapaddhati.*[582] There the third line reads thus:

चतुर्भौमाद्यार्कभौमादाभासाख्यानि तानि वै ।

These four—*Jāti, Chandas, Vikalpa* and *Ābhāsa*—constitute the classes of structures which are commonly known under the broad title "*Mahāprāsādas,*" and the chief basis of classification that is employed here is the dimension both vertical and horizontal, such as the breadth and height, and the number of talas that enter into the making of these different classes of structures. A comparison of our text with the several other allied texts reveals the authoritative character of the treatment, which is in consonance with the statement of the several authorities we have referred to and illustrated above.

STANZAS 65—70.

In these stanzas, the author states the formulas that are to be adopted in the determination of the shape of the ground-plan of the structure. Here, in all shapes—square, rectangular, hexagonal, octagonal, circular, elliptical, apsidal and the like—, the basic figure that uniformly presents itself in the formulas is the perimeter. The extent of the ground-plan is to be taken as fixed, and, after choosing a perimeter, the formulas are required to be applied to this chosen perimeter.

581. *Tantrasamuccaya* with Vimarśinī (T. S. S. Ed.), Part I, p. 90.
582. *Gurudevapaddhati,* (T. S. S. Ed.), Uttarārdha, Paṭala XXX, 18(1).

The formula relating to the circular Prāsāda, etc., may be thus stated as follows : —

(1) *Circular Prāsāda*

$$\text{Radius of the circle} = \frac{P}{710} \times 113.$$

(2) *Rectangular Prāsāda.*

$$\text{Breadth} = \frac{\tfrac{1}{2}\text{ perimeter}}{10} \times 4$$

$$\text{Length} = \frac{\tfrac{1}{2}\text{ P}}{10} \times 6.$$

(3) *Hastipṛṣṭha type.*

$$\text{Length} = \frac{\text{perimeter}}{64} \times 63 \times \frac{4}{18}$$

$$\text{Radius of the semi-circle} = \frac{\text{perimeter} \times 63}{64} \times \frac{2}{18}$$

and so on . (P = Perimeter) . Directions are further given with regard to elliptical, hexagonal and octagonal structures.

Having fixed any perimeter desired for the sanctum, the site of that desired size can be converted into any shape, having recourse to formulas. The adoption of the perimeter as the uniform basic standard in the formulas of any shape, tends to strengthen the view-point that square constitutes the fundamental shape, from which all other shapes can be derived or modified and with which all the other shapes may be associated directly or indirectly. This interesting feature, which the different formulas of shape reveal, deserves to be borne in mind in connection with the topic of shapes of structures.

STANZA 71.

*Three Main Styles of Architecture—Nāgara, Drāviḍa, and Vesara.**

After having described the shapes in general the author now deals with the three main styles of Indian temple Architecture known as 'Nāgara,' 'Drāviḍa' and 'Vesara.' Shape, pure or mixed, is the basis which the Indian authorities adopt in the differentiation of structures as Nāgara, Drāviḍa and Vesara. Structures are classified from various points of view such as their ornamentation, the number of their talas, their size and the like; but the classification on the basis of shape is the most ancient and important mode of differentiation. The authors of the *Suprabhedāgama,*[583] *Kāmikāgama,*[584] *Mayamata,*[585] *Kāśyapaśilpa,*[586] *Gurudevapaddhati,*[587] *Mānasāra,*[588] *Śilparatna,*[589] etc., consider shape as the fundamental basis of classification of the styles of architecture. The statement of our author with regard to shape is perfectly clear. As described by the author, that edifice is known as *'Nāgara'* which is square from the basement to the Śikhara (both parts inclusive); that which is hexagonal or octagonal from above the neck to the end of the Śikhara is *'Drāviḍa'* (here, the shape of the portion below the neck as implied is square); that which is circular from the basement or from the neck is *'Vesara'*. It deserves to be noticed here that 'Nāgara' is of the pure form, whereas the others admit of a mixture of shapes. Where the shape is of a composite character, the shape of the body portion, as implied in the description by several authors, is square, and it therefore may conveniently be held that the shape of the Śikhara is always the guiding factor in all instances of pure or mixed shape. Thus, if the *Śikhara* is square, it is *'Nāgara'*; if faceted, *'Drāviḍa'*; if circular, *'Vesara'*. Here by shape of Śikhara we are inclined to understand the shape of the horizontal section of it, because such an interpretation

*For a discussion at length on the three main styles *vide* my paper on *'Nāgara'*, *'Drāviḍa'* and *'Vesara'* contributed to the *Journal of the Indian Society of Oriental Art*, Vol. IX (1941 issue, now in the press).

583. *Suprabhedāgama*, Ch. XXX.
584. *Kāmikāgama*, Ch. 49.
585. *Mayamata* (T.S.S. Ed.), Ch. XIX.
586. *Kāśyapaśilpa* (Anandāśrama Series).
587. *Gurudevapaddhati*, Uttarārdha, XXX.
588. *Mānasāra* (P. K. *Āchārya's* ed.), XVIII.
589. *Śilparatna*, (T. S. S. Ed.), Vol. I; XVI.

tends to minimise the confusion that has crept into the discussions on the subject of Styles of Indian temple architecture. Further, it enables us to apply the definition of Nāgara given in architectural literature to the extant structures of North India, which are variously called by modern writers, 'Indo-Aryan' shrines, 'Āryāvarta' shrines, 'Nāgara' shrines, etc. Because of the bulging curvilinear form which the Śikharas present it need not be supposed that it is outside the pale of the definition of Nāgara as set forth in the Śilpaśāstras. As Prof. Pisharoti remarks:[590] "its bulging or curvilinear nature is not the essential character of *Nāgara Śikharas*, variously called the Indo-Aryan or *Āryāvarta* shrines; it is a subsidiary feature built into the square Śikhara as a matter of ornamentation in the course of the development of Indian architecture, and this explains the absence of the same in earlier structures of the *Nāgara* type in North India as also the later day shrines in other parts of India." The following observation might be noted in this connection :—

"All authorities are agreed that *Nāgara* shrines are characterised by a square *Śikhara* : in other words, it will be a pyramid on a square base, ending in a point. That this is the approved shape for *Nāgara* shrines is not merely a matter of theory, but is also something actually borne out in practice, as is seen in the extant architectural remains of the earliest as well as the latest structures. When it is said that the *Nāgara Śikhara* is a square, the idea is that any horizontal section of the same must be a square. This primary aspect being satisfied, it may have manifold shapes, and even the bulging curvilinear *Śikhara* can have a square base. Hence it has to be borne in mind that because a Śikhara has a bulging curvilinear outline, this particular feature need not be against the view of the traditional theorists.......... Now with this basic conception that every *Nāgara* shrine must have a square section, the variations in actual form may be manifold, based on a straight line or a convex line or a concave line; and every genuine *Nāgara* shrine, brought under the category of Indo-Aryan or *Āryāvarta*, or Śikhara shrine—if it may be rightly termed *Nāgara* shrine—must have this square section, whatever else it may or may not have."[591]

It is interesting in this connection to trace the origin and probable significance of the term *Nāgara* in view of the controversy that has

590. *Annamalai University Journal*, Vol. V, No. 2, 'Śikhara,' p. 214.
591. *Ibid.*, pp. 211, 212.

raged round the Styles of Indian Temple Architecture. Nāgara is that which is connected with 'Nagara' (नगरसम्बन्धि). The term 'Nagara' comes from the word 'Naga.' In the vārtika "नगपांसुपाण्डुभ्यश्च" under the sūtra[592] "ऊषसुषिमुष्कमधोरः". Kātyāyana adds the affix 'ra' after the word 'naga'. The affix 'ra', it must be remembered, is used in the force of 'matup' which signifies 'nityayōga' (the inherent or permanent quality of a thing, or 'saṁsarga' (association). The term 'Nagara' is derived as "नगाः सन्ति अस्मिन्निति" and it is employed in ordinary literature in the sense of a 'town.' What is the meaning of 'naga' in 'Nagara'? The word 'Naga' in 'Nagara' (town) probably implies 'house', and it is not improper to call a town 'Nagara' in that it is marked by the presence of houses* which are firm like 'nagas'. This interpretation is not inconsistent with the etymological derivation of 'naga' as "न गच्छतीति नग." A house does not move, and immobility is one of the chief attributes of architecture. If we are permitted to speculate further, we might associate the sense of trees in the derivation of 'Nāgara' and presume that ultimately 'Nāgara' tends to suggest the style of building evolved out of intense and constant practice in the material 'wood', for 'Naga' also means 'tree.' It is held almost universally that in a country which is so rich in timber like India, the original and extensive material used in the construction of houses was 'wood'. The 'Parṇakaśālās' of the sages of old were transformations into forms of huts or humble dwellings of the materials which the trees yield. In simple structures of the kind, trunks were used for posts and beams and leaves were employed for plaiting and covering. In the construction of temples too wood was the material largely employed in ancient times. Timber tends to give straight lines, and consequently the structure where wood is the material that is chiefly employed, assumes necessarily square or rectangular shape. This is only a natural process, the inevitable result of evolution, as architectural species adapt themselves to the materials largely used. Straight feature, which is the expression of the inherent quality associated with wooden species of construction, and which is suggestive of the idea of firmness of structure, later on became systematised into square or rectangular style of structure, known as 'Nāgara'. The term 'Naga' (tree) in Nāgara may be taken as indicative this inherent rectangular feature of wooden construction. It is no

592. Pāṇini's sūtra, 5, 2, 107.

* नगा इव प्रासादादयः सन्ति यत्र (*Śabdakalpadruma*, Vol. II, p. 817).

doubt difficult to assert this way or that about the origins of style; but this much may be said, that style is formed and moves within certain psychological currents. "Style in architecture", as John Summerson remarks,[593] "is ultimately a matter of the unconscious associations developing round structural forms." Thus square or rectangular form of construction associated with the form of wooden buildings ultimately resulted in the square style of construction known as 'Nāgara.' This square aspect, which is originally the inherent feature of wooden construction, at a later stage came to be translated in stone and brick, and it is at this stage of development that the bulging curvilinear line was introduced. The bulging nature has thus to be taken as an instance of further elaboration of the square style, sprung out of the tendency to elaborate and modulate and ornament the original structural forms. This curvilinear and bulging aspect is divorced from the functional background of a roof in the case of the North Indian shrines characterised by their bulging curvilinear type of Śikhara. It constitutes a sub-variety of the Nāgara style of Śikhara, whose fundamental shape is square. Being a later day addition, it should not be confused with the origin of the square and pyramidal Śikhara. Elaborations and additions were, no doubt, introduced in the form of the bulging curvilinear lines, but they leave the inner foundational shape unchanged and the square phase of architecture which the horizontal section of the culvilinear variety of 'Nāgara Śikharas' displays remains untouched. Thus the curvilinear types of 'Nāgara Śikharas' of North Indian can be brought under the 'Nāgara' class defined in the *Śilpaśāstras*, if by the shape of Śikhara we mean the shape at the horizontal section of the Śikhara or the inner section shorn of the later modifications and additions in shape. The fundamental square section of Nāgara may be attributed to the inherent quality of the material wood, if we grant the supposition that the structures which gave significance to ancient cities were originally of wooden make.

Based on a wrong rendering of the term 'Yugāśra' as 'two-cornered'[594] Dr. Gravely and Mr. Ramachandran remark that Śrīkumāra, the

593. "*The Arts of To-day*" (ed. Geoffrey Grigson) [The Bodley Head]), Section on Architecture, p. 280.

594. "*Three Main Styles of Indian Temple Architecture*" by Gravely and Ramacandran (Bulletin, Madras Govt. Museum, New Series, General section, Vol. III, Pt. 1), pp. 3 and 5.

author of the *Śilparatna,* is confused in his account of '*Nāgara*'. The author of the *Śilparatna,* as usual in other contexts, follows our author and adopts the present stanza in his work with slight change in the reading of two expressions. Thus 'Mūlādyā śikharam' is read in the *Śilparatna* as 'Mūlādā śikharam' and पृथगात्तलक्ष्मसु विदध्यात् as पृथगात्तलक्ष्म सुविदध्यात्। It is clear beyond doubt that the text attributed to Śrīkumāra is originally the text of the *Tantrasamuccaya.* After quoting and translating two stanzas which define 'Nāgara', the authors of the "*Three Main Styles of Indian Temple Architecture*" remark: "Both the definitions of Nāgara agree with those of the *Mānasāra* and *Suprabhedāgama* in saying that the characteristic shape extends from bottom to the top; but both give this shape as "two-cornered". So far as we know, "two-cornered" can only relate to an apsidal building; but of this there is here no further indication, and Nāgara is the only style in which such buildings are *not* mentioned in the Mānāsāra definitions. Obviously the Śilparatna account is confused and we suspect etc."[595] Here, it deserves to be remembered that the term 'Yuga' is used not in the sense of two, but in the sense of *four* (this *saṅkhyāvācaka* symbolising the number *four* having reference to the four Yugas—Kṛta, Dhṛta, Dvāpāra and Kali). The commentator Śaṅkara paraphrases "युगाश्ररचितम्" in the words "चतुरश्ररूपेण कृतम्" [596]. There is thus no room for doubt as to the interpretation of Yuga in the sense of four, and the slur cast on Śrīkumāra is obviously unfounded and based on the wrong interpretation of Yuga in the sense of two. The description of Nāgara as square style, given in our text and as accepted by Śrīkumāra, squares with the definition of Nāgara found in the works of other authors. The statement of Śrīkumāra –" सर्वाणि सर्वदेशेषु भवन्तीत्यपि केचन॥"–[597] appears to us as a mere record of the fact that all styles are found practised in all parts, and that they should not be confined rigidly within the limits of geographical divisions of the country. The main basis of classification being shape, much stress need not be laid on goegraphical implications. In the same place different styles are found practised side by side. The temples of Mahābalipuram may be cited as one such instance in point. In Kerala the square and circular styles are very commonly met with.

595. *Ibid.* p. 5.
596. *Tantrasamuccaya* with *Vimarśinī* (T. S. S. Ed.); Part I, page 92.
597. *Śilparatna* (T.S.S. Ed., Vol. I), XVI, 44(2).

As examples of some of the types, the following references may be noted :—

Nāgara style.—Naṭarāja Temple, Chidambaram. (Vide Plate I, Fig. XI, Annamalai University Journal, Vol. V, No. 2, Article on Śikhara); *Kitholi* Temple, Cranganore, and *Śiva* Temple, Trichur (*Ibid.,* Pl. II, figures XII, XIII).

Drāviḍa Style.—The great temple at Tanjore (Pl. I, Fig. X). Mahābalipuram group (Plate IV. A. U. Journal).

Vesara Style.—The central shrine at Trichur, and the shrine at Iriñjālakkuḍa. (Pl. III, Figs. XIV, XV).

Hastipṛṣṭha Style.—Mahābalipuram temple—(plate IV, Figs. XVI, XVII (Annamalai University Journal, *Ibid*); *Kapoteśvara* temple at Chezarla (Annual Report of Archaeological Department, Southern Circle, Madras, 1917—18, Plate XVII), and *Ananteśvara* temple at Udipi (*Ibid.,* Rept—1920-21. Fig. 2).

Caturaśra, Aṣṭāśra and *Dīrghacaturaśra.*—grouped side by side at Māmallapuram (Vide Annamalai University Journal Vol. V, No. 2, Article on Śikhara, Pl. IV, Fig. XIV).

If we compare the *Mānasāra* with our text in the matter of details, in this context, it will be found that with regard to the combination of shapes, the *Mānasāra* is more elaborate than the *Tantrasamuccaya.* The text of the *Mānasāra* on 'Nāgarādividhāna' as presented in P. K. Ācārya's edition needs to be emended in many places in order to make it yield the ideas in respect of which there is consensus of opinion among the different authorities. In a recent article on 'Mānasāra on Nāgarādividhāna' Prof. Pisharoti has attempted to present an emended text and translation as follows :—

" चतुरश्राकृतिं यत्तु नागरं तत् प्रकीर्तितम् ।
मूलाद्वा वृत्तमाकारं तद्वृत्तायतमेव वा ॥

ग्रीवादिस्तूपिपर्यन्तं ग्रीवस्याधो युगाश्रकम् ।
आमूलाग्रं द्व्यश्रकं वा वेसरोनामकं भवेत् ॥

मूलाद्वा स्तूपिपर्यन्तमष्टाश्रं वा षडश्रकम् ।
तदेव चायतं वापि ग्रीवस्याधो युगाश्रकम् ॥
पूर्ववच्चोर्ध्वदेशं स्याद्द्राविडं परिकीर्तितम् ॥" (Lines 93 to 99).

" (93) That which has a square shape is well known as *Nāgara*,

(94) What is circular or ellipsoidal from the base (upwards)

(95) Or from above the neck to the finial, the part below being square;

(96) Or what is apsidal from the base to the top may be termed *Vesara*,

(97) From the base upwards to the finial what is hexagonal or octagonal,

(98) Or the same elongated; or what has the part below the neck square,

(99) That above being as laid down before, is termed *Drāviḍa*."[598]

The different shapes which characterise the various styles according to the several authorities like the *Kāmikāgama*, *Suprabhedāgama*, *Mayamata*, *Kāśyapaśilpa*, *Gurudevapaddhati*, *Mānāsāra* and *Tantrasamuccaya* may be tabulated as follows :—

Texts.	Styles. Nāgara Pure. Body and Śikhara.	Drāviḍa Pure. Body and Śikhara.	Drāviḍa Composite Body: Śikhara	Vesara Pure. Body and Śikhara.	Vesara Composite Body: Śikhara
1. *Kāmikāgama*	Sq.; rect.	H.; HE.	Sq.: Oct.	C.; Ell.	Sq.: C.
2. *Suprabhedāgama*	Sq.		Sq.: H.		Sq.: C.
3. *Kāśyapaśilpa*	Sq.		Sq.: Oct.		Sq.: C.
4. *Mayamata*	Sq.; Rect.	H.; Oct.; HE.; OE.;	Sq.: Oct.	C.; Ell. Ap.	Sq.: C.
5. *Gurudevapaddhati*	Sq.; Rect.	H., HE.; O.; OE.	Sq.: Oct.	C.; Ell. Ap.	Sq.: C.
6. *Mānasāra*	Sq.	H., HE.; O., OE.	Sq.: H, Oct.		Sq.: C. Sq.: Ell. Sq.: Ap.
7. *Tantrasamuccaya*	Sq.		Sq.: H, Oct.		Sq.: C.

[Here Sq.=Square; Rect.=Rectangle; H=Hexagon; H.E.=Hexagon elongated; Oct.=Octagon; OE=Octagon elongated; C=Circular; Ell.=Ellipsoidal; A=Apsidal].

598. *Indian Historical Quarterly*, Vol. XIII, No. 2, June 1937, pp. 354, 355.

It will be clear from the above table that Nāgara, according to all authorities, is always a purely four-sided structure which may be square or rectangular, and that wherever that shape is of a mixed character, the body portion will be square. Shape of the Śikhara therefore might be said to constitute the fundamental basis of classification of style according to architectural authorities in India.

Vesara:—The term '*Vesara*' in its primary significatory capacity means 'a mule.' In architectural literature it is used figuratively to convey the sense of circular style of construction. Vesara or mule is a product of the combination of horse and ass, and while it is thus a product it does not reproduce. In the conception of Hindu builders a circle is a derivation from the fundamental square through an increase in the number of sides and elimination of corners; and while it is thus a derivation, it does not form the basis of any transformation in shape. The *Tantrasamuccaya* (II, 125) in the wake of the *Mañjarī* in the course of the description of the square base, the octagonal middle and circular top of a Liṅga directs the designing of the octagonal and circular sections as follows:—

" तुर्याश्रे सुसमे प्रसार्य भुजसूत्रं कर्णसूत्राध्वना
तस्यान्तोहितलक्ष्मसु प्रतिदिशं द्वे द्वे भुजासूत्रके ।
कृत्वा तद्द्वयमध्यसंस्थितचतुष्कोणानि संशोध्य सा–
ध्वष्टाश्रं विदधीत वृत्तमपि तद्द्वयष्टाश्रकादिक्रमात् ॥"

(The stanza has been explained and illustrated in my paper on *Nāgara, Drāviḍa* and *Vesara* in the J.I.S.O.A., Vol. IX).

Accessory Structure—'Aṅgas'

Prof. Pisharoti[599] observes that the *Sanctum Sanctorum* is the central 'Aṅgin' on which the architect spends his thought and skill, while every subordinate structure figures as an 'Aṅga' or appendage. The accessory structures in their disposition bear a due sense of proportion to the central shrine. We might consequently remark that the importance of of the *Sanctum Sanctorum* is 'absolute', while that of the other structures associated with it is 'relative' or 'subordinate'.

599. *"Some Architectural conventions of South India,"* vide the ***Cultural Heritage of India,*** Vol. III, p. 527.

STANZA 72

Mukhamaṇḍapa

The Mukhamaṇḍapa which is described in the present stanza is the ante-chamber, the porch constructed in front of the cell that holds the image. The Vivaraṇakāra remarks that it is built in response to the requirement of additional structural expansion. Its dimensions bear a fixed sense of proportion to the '*Dhāman*' or the principal edifice. In the text, five alternative proportions are prescribed for the breadth of the Mukhamaṇḍapa. Thus the breadth of the Mukhamaṇḍapa may be $\frac{1}{2}$, $\frac{3}{5}$, $\frac{4}{7}$, $\frac{6}{10}$, ($\frac{4}{10}$ or $\frac{5}{12}$ of the vistāra of the principal structure. The author of the *Śilparatna* in his extract gives the reading अंश for अङ्ग. Aṅgas are 6, and the proportion $\frac{6}{10}$ i.e. $\frac{3}{5}$ is a mere repetition of what has already been referred to as $\frac{3}{5}$, and hence the fourth alternative should be different. K. Nilakaṇṭhan Āśāri, in a vernacular text known as '*Śilpiratna*,' refers to the four proportions given in our text, and also gives $\frac{2}{5}$. If we accept this proportion $\frac{2}{5}$ as the fourth alternative proportion, then we evade what otherwise sounds like a repetition. The length of the Mukhamaṇḍapa, according to the text, is half, three-fourth of, or equal to the breadth of the central shrine. The following statement is found in the *Śilparatna*, which characterises the alternative proportions as belonging to the lowest, middling and the best types :—

"हर्म्यतारार्धमानं तु कन्यसं मुखमण्डपम् ।
हर्म्यतारसुखं श्रेष्ठं त्रिपादं मध्यमं पुनः ॥"[600]

STANZA 73

The Pañcaprākāras

The author in this stanza refers to the five-fold division of the temple area that surrounds the *Sanctum Sanctorum*. There are five enclosures called 'Pañcaprākāras' and, beginning with the innermost and ending with the outermost limit, they are known as Antarmaṇḍala, Antahārā, Madhyahārā, Bāhyahārā and Maryādā. The five Prākāras,

600. *Śilparatna* (T.S.S. Ed.), Ch. XXXIX, 2.

according to vernacular commentators, are known by the following vernacular terms:—(1) 'Akatte Balivaṭṭam,' (2) 'Cuttambalam' or 'Nālambalam,' (3) 'Viḷakkumāḍham', (4) 'Śīvelippura,' and (5) 'Puramatil' in order. The *Antarmaṇḍala* as the term indicates, is the internal circle and its margin marks the seat of the internal 'Dikpālas' or guardians of the quarters. '*Antahārā*' is the quadrangular structure which runs round the shrine and beyond the margin of Antarmaṇḍala. Beyond 'Antahārā' is situated the '*Madhyahārā*', which is a circumambulatory roofed structure carrying all around rows of lights, usually arranged in nine tiers. These lights adorn and illumine, when lit, the outer face of its wall. The Malayālam term 'Viḷakkumāḍham', which means lighthouse, brings out the utilitarian motif of this structure, which is to hold the tiers of lights referred to above. The enclosure beyond the Madhyahārā is the *Bāhyahārā* along whose line the external Dikpālas are situated. The 'Balipīṭha', or Oblation-stone, is placed in its outer limit. Malayālam commentators identify it with 'Śīvelippura', which is a structure intended as a processional path round the sanctum beyond the Madhyahārā. The outer line of Bāhyahārā forms, however, the seat of the external Dikpālas, to whom oblation is offered during annual festive occasions. '*Maryādā*' is the outermost limit of the temple area, and in this fifth and final boundary or enclosure is built a massive wall which surrounds the sanctum. This surrounding wall is broken at the main quarters by gateways called 'Gopuras'. These are the five enclosures, one beyond the other, whose disposition forms the subject matter of the section that follows. The present stanza prescribes the distance which each enclosure is to keep from the central shrine. Half a Daṇḍa from the Mūlaprāsāda constitutes the Antarmaṇḍala, which is the seat of the 8 Dikpālas ; one Daṇḍa or one Daṇḍa and a half, the Antarhārā ; two Daṇḍas off, the Madhyahārā ; four Daṇḍas off, the Bāhyahārā ; and seven Daṇḍas away from the Mūladhāman, the final boundary known as 'Mahāmaryādā.' This last, viz., Mahāmaryādā, may be alternatively 21 Daṇḍas away from the central shrine. All Prākāras, except the first, namely, Antarmaṇḍala and the last Mahāmaryādā, will be accompanied by a ' Mukhāyāma ' or facade.

The term 'Daṇḍa' referred to here is used in a special sense and is distinct and different from 'Daṇḍa' which is the top-measure of a pillar. The significance of Daṇḍa employed here to measure the disposition of the enclosures is explained in the next verse.

The five Prākāras referred to here are also referred to in allied texts like the *Viṣṇusaṁhitā*, *Pāśupata*, *Mañjarī*, *Gurudevapaddhati*, and *Mānasāra*'.

The *Viṣṇusaṃhitā*[601] thus states:

" अन्तर्मण्डलदण्डार्धदण्डे स्यादन्तहारका ।
मध्यहारा द्विदण्डा च चतुर्मर्यादभित्तिका ॥
सप्तदण्डायता कार्या मर्यादा भित्तिका ततः ।"

This text is from the Trivandrum Edition. The relevant text, which reads better, is supplied by Śaṅkara in his *Vimarśinī*, and it runs as follows:[602]

" अन्तर्मण्डलदण्डार्धे दण्डे स्यादन्तहारका ।
मध्यहारा द्विदण्डा च चतुर्मर्यादभित्तिका ॥
सप्तदण्डायता कार्या मर्यादा महती तथा ।"

The text may thus be tabulated:—

Antarmaṇḍala	..	½ a Daṇḍa from the shrine.
Antahārā	..	1 Daṇḍa from the shrine.
Madhyahārā	..	2 Daṇḍas from the shrine
Maryādabhitti	..	4 Daṇḍas from the shrine
Mahāmaryādā	..	7 Daṇḍas from the shrine

With regard to the last two structures referred to in the list there is slight discrepancy in the nomenclature adopted. What the author of the *Tantrasamuccaya* calls 'Bāhyahārā' is termed 'Maryādabhitti' in the *Viṣṇusaṁhitā*. What is called merely 'Maryādā' in our text is termed 'Mahāmaryādā' in the *Viṣṇusaṁhitā*.

601. *Viṣṇusaṃhitā*, Paṭala XIX, Sts. 24, 25(1) (T.S.S. Ed.).
602. *Tantrasamuccaya* with *Vimarśinī* (T.S.S. Ed.), Part I, p. 93.

The following stanza is found in the *Mañjarī*[603] :—

"अन्तर्मण्डलमष्टमूर्तिनिलयं दण्डार्धतः सम्मितम् ।
दण्डे तत्पुरतोऽर्धदण्डसहिते स्यादन्तहारा गृहात् ॥
दण्डैर्वापि तदेकविंशसहिते स्यान्मध्यहारा तथा ।
मर्यादा महती च भित्तिरुदिता दण्डोऽत्र धामोत्तरम् ॥"

In the *Vimarśinī* the following extract from the *Pāśupata*[604] is found:—

"सप्तसीमासमायुक्तं स्थानं सर्वदिवौकसाम् ।
अन्तर्मण्डलमाद्यं स्याद् दण्डार्धे जगतीस्थलात् ॥
तस्मादप्येकदण्डान्ते चान्तहारा गृहाद् बहिः ।
मूलस्थानाद् द्विदण्डान्ते दीपशाला सुशोभना ॥
नीचहारां ततः कुर्याद् दण्डार्धे भित्तिरुज्ज्वला ।
मध्यहारा चतुर्दण्डे मर्यादा सप्तसंमिते ॥
एकविंशतिदण्डान्ते महन्मर्यादभित्तिका ।"

Here it will be noted that the *Pāśupata* lays down 7 boundaries as the surrounding enclosures of a shrine: (1) Antarmaṇḍala, (2) Antahārā, (3) Dikpāla, (4) Nīcahārā, (5) Bhitti, (6) Madhyahārā, (7) Maryādā, or Mahāmaryādabhitti. The last 'Mahāmaryādabhitti' is so called because it keeps the largest distance (of 21 Daṇḍas) from the central shrine.

The *Mānasāra*[605] describes the functions of these five Prākāras in the following stanza:—

"बल्यर्थं परिवारार्थं शोभार्थं रक्षणार्थकम् ।
पञ्चप्राकारहर्म्याणामधुना वक्ष्यते क्रमात् ॥"

The five enclosures, according to the *Mānasāra*, are to be made to serve different functions like the offering of oblation, attendance, imparting of splendour and giving of protection—all these consistent with the ideal of divine service which under the Tāntric aspect as illustrated above commands regal honour and glory.

603. *Prayogamañjarī*, Paṭala VI, (Ms. Adyar Mss. Library).
604. *Tantrasamuccaya* with *Vimarśinī* (T.S.S. Ed.), Part I, p. 93.
605. *Mānasāra*, Ch. XXXI, Stanza 1.

The *Mānasāra*[606] enumerates the five Prākāras in the following stanzas quoted below:—

“ आदिशालां ततः कुर्यादन्तर्मण्डलमीरितम् ।
द्वितीयमन्तहारा च मध्यहारा तृतीयकम् ॥
प्राकारं तच्चतुर्थं च कथितं तन्मयादिकम् ।
ततः पञ्चमशाला च महामर्यादमीरितम् ॥
पञ्चशालामिति प्रोक्तं तन्त्रविद्भिः पुरातनैः ॥”

Gurudeva[607] also refers to the 5 Prākāras in the following verses:—

“ प्रासादभवनादीनां रक्षालङ्कारसिद्धये ।
वप्राणि क्रमशः कुर्यात् पञ्चत्रिद्व्येकसङ्ख्यया ॥
तत्रान्तर्मण्डलं त्वाद्यमन्तर्हाराथ तद्बहिः ।
मध्यहारा च मर्यादा महामर्यादकं ततः ॥”

STANZA 74

Daṇḍa and Mukhāyāma described

The measure known as ‘*Daṇḍa*’ which is referred to in connection with the measurement of the Pañcaprākāras is defined in the present stanza. It is the Vyāsa of the uttara, or of the Kumuda or of the Pāduka. ‘Vyāsa’ is the breadth, and this consists of the distance between the uttaras placed opposite to each other in the case of ‘uttara Daṇḍa’; in other words, it is the breadth of the outer uttara itself. This Vyāsa of the uttara is the first kind of Daṇḍa. Similarly, the breadth of the Kumuda gives the second kind of Daṇḍa and the breadth of the Jagatī the third type of Daṇḍa. Thus three types of measures are prescribed, which characterise three kinds of Daṇḍa, and they are referred to above as ‘Uttara-Daṇḍa’, ‘Kumuda-Daṇḍa’ and ‘Pāduka-Daṇḍa.’ The applicability of these three units of measures is also laid down, and any one

606. *Ibid*, Stanzas 6, 7, 8.
607. *Gurudevapaddhati*, Uttarārdha, Paṭala XXXV, 44, 45.

which is chosen must start its measure from that place from where it derives its name. Thus, if it is the Uttara-Daṇḍa that is employed, the measurement must start from the outer-limit of the Uttara; if it is Kumuda-Daṇḍa, from the outer-limit of the Kumuda; and if it is Pāduka-Daṇḍa, from the limit of the Pāduka. In other words, the direction urges that the use of any one of the three kinds of Daṇḍa measure must be made from the outer extent of that part with which particular Daṇḍa is found associated and from which it takes its distinct nomenclature.

The three classes of Daṇḍa are characterised by a slight variation in their measure, and this variation is in accordance with the difference that marks the measurement of the three parts, 'Uttara,' 'Kumuda,' and 'Pāduka'. It will be noted here that the Kumuda, possesses a larger measure than the 'Uttara'. Of all the three, the Pāduka is the largest and the uttara the smallest. The length of the Mukhāyāma, or facade, is next described in the latter part of this stanza. The measure of the Mukhāyāma may be one, one and a quarter, one and a half, or one and three-fourths of a Daṇḍa. The Mukhāyāma whose measure is here laid down is the one which is prescribed for the Antahārā, Madhya-hārā and Bāhyahārā. The proportion of the Mukhāyāma which our author has stated is supported by the following reference to it from the *Viṣṇusaṃhitā* and *Pāśupata.*

The *Viṣṇusaṃhitā*[608] observes:—

"मुखायामस्त्रिभागेन पादेनार्धेन वा पुनः ॥"

Pāśupata states[609]:—

"अर्धेन पादहीनेन समस्तेनोत्तरेण तु ।"

STANZA 75

In this stanza the author treats of the outer-limit of the first Prākāra and the location of Balipīṭhas. Eight are the Dikpālas, who are supposed to guard and preside over the eight quarters consisting

608. *Viṣṇusaṃhitā,* Paṭ. XIX, 25 (T.S.S. Ed.).
609. *Pāśupata* quoted in *Vimarśinī* of the *Tantrasamuccaya,* Part I, p. 94. (T.S.S. Ed.).

of four 'Dīks' (main sides) and four 'Vidiks' (corners). The eight Dikpālas are referred to in the following stanza[610]:—

"इन्द्रो यमश्च वरुणः सोमोऽग्निर्निर्ऋतिस्तथा ।
वायुरीशान इत्यष्टौ लोकपालास्तु तद्बहिः ॥"

Indra is the guardian of due East; Yama, of due South; Varuṇa, of due West; and Soma, of due North. Agni is the lord over the South-East; Vāyu, over the North-West; and Īśāna, over the North-East; Nirṛti, over the South-West. To these eight Dikpālas is offered oblation on festive occasions, and the oblation-stones dedicated to these guardians of quarters are known as 'Balipīṭhas.' Corresponding to the eight Dikpālas, there are eight oblation stones and their exact disposition is described in this verse. The top-measure of the Balipīṭha must be divided into five parts, and the Balipīṭha should be so situated that three parts thereof should come inside the boundary line of the Antarmaṇḍala and two parts outside it. The eastern and southern Dikpālas will lie in their own sūtras, while others of the West and North will be shifted slightly in the circumambulatory direction. The Vivaraṇakāra[611] remarks in this connection:—

पश्चिमोत्तरदिक्पालाश्चत्वारः । तस्मिन् सूत्र एव किञ्चित्प्रादक्षिण्येन प्रतिमाङ्गुलादिमानेन गमयितव्याः ॥

Īśāna and Indra are Prācyas, and Agni and Yama are Avācyas. These Prācyas and Avācyas should remain in their sūtra, but the rest must be shifted slightly from their sūtra. The amount of shifting, as stated in a Malayalam commentary[612] and as supported by the *Viṣṇusaṁhitā*, is the same as the distance that subsists between the eyes of the Pīṭha. Thus the Balipīṭha, to be situated in the western line should be so moved northwards that the right eye of the Pīṭha, on that line should keep line with the right eye of the opposite Pīṭha, which is situated in the eastern direction and which is described as facing the western direction. If all the Pīṭhas are situated exactly in the same line, then the right eye of each Pīṭha will meet the left eye of the Pīṭha that faces it from the corresponding opposite direction. By a slight movement in the circumambutory

610. *Viṣṇusaṁhitā*, Paṭ. XXIII, Stanza 9.
611. *Tantrasamuccayavivaraṇa*, R. No. 1994 Ms. (G.O.M.L., Madras).
612. Ms. R. No. 4.128 (G.O.M.L., Madras).

direction of the Western and Northern Pīṭhas, as described above, the right eye of one will meet the right eye of the opposite that faces it. In the last quarter of the stanza the author lays down that the eastern and southern guardians of quarters which lie in their sūtras, and the others which are shifted slightly in the circumambulatory direction—both these will face the main quarters and one another. Accordingly Īśāna, Indra and Agni will face the western direction; Nirṛti, Varuṇa and Vāyu the eastern direction; Soma the southern direction and Yama the Northern direction. Again, each will face the other on the opposite side. Thus Indra will face Varuṇa, and Varuṇa, Indra ; Agni will face Nirṛti, and Nirṛti, Agni ; Yama will face Soma and Soma, Yama; Vāyu will face Īśāna and Īśāna, Vāyu. The idea underlying this rule of facing is that no guardian of quarters should be made to face the corners. Īśāna and Nirṛti, Agni and Vāyu, for instance, should not be allowed to mutually face each other. This explanation is based upon the interpretation that the Vivaraṇakāra has given in the lines noted below[613]:—

"पूर्वे त्रयः पश्चिमास्त्रयश्च परस्परमभिमुखाः। अत एव महादिगभिमुखाश्च। महादिगभिमुखा इति वचनं अग्निवाय्वोः ईशनिर्ऋत्योश्च परस्परसम्मुखत्वं मा गृह्येत इत्येतदर्थं दक्षिणोत्तरौ तु परस्परसम्मुखौ स्यातामिति चार्थः ॥"

In support of the observation made in this stanza, we shall take note of the text of the *Viṣṇusaṃhitā* quoted below[614]:—

"पूर्वास्त्वप्रतिचाल्याः स्युरितराश्चास्थिराः शुभाः ।
अन्योन्याभिमुखाः कार्यास्तथान्ये दक्षिणोत्तराः ॥
अन्योन्यं दक्षिणाक्षिभ्यां प्रशस्तं दर्शनं द्वयोः ।
अप्रशस्तं च विज्ञेयं तथा वामाक्षिदर्शनम् ॥"

The following extracts attributed to the *Mañjarī*[615] may be noted:—

"अन्तर्मण्डलसीमान्ते लोकेशानां हि पीठिका ।
विरिञ्चस्येशपूर्वेण नैर्ऋत्यां पश्चिमोत्तरे ॥
अनन्तस्योत्तरे सोमात् कुबेरस्य ॥"

613. *Ibid.*
614. *Viṣṇusaṃhitā*, Paṭala XXIII, stanzas 62, 68. (T. S. S. Ed.).
615. Quotation, *Vide* Vimarśinī, *Tantrasamuccaya*, Part I, pp. 94-95. (T. S. S. Ed.).

STANZA 76.

The author in this stanza treats of the disposition and features of what is known as 'Arcanāmaṇḍapa' or 'Namaskāramaṇḍapa.' It will be noted here that this structure is an additionl one, built within the precincts of the temple area, and does not constitute one of the five Prākāras. It is intended to give room to devotees who come to have a view of the God and to pay Him their homage. It deserves to be remembered in this connection, that the temple proper is distinct and different in its purpose from accessory structures like the Arcanāmaṇḍapa. As Dr. Coomaraswamy[615] would observe, "it should be understood that the temple is a dwelling erected for the God, not for congregation: the latter visit the temple, not to take part in the service, but to see (darśana) the God and do their reverence". Here service which involves observance of rituals comes within the province of the duty of the officiating priests. The Arcanāmaṇḍapa is constructed for the convenience of the visitors who come to the temple to see God and pay Him their respects. The place of importance is given to the Prāsāda, the dwelling of God, and these accessory structures, such as the different courts built around the shrine, are regarded as useful inasmuch as they serve to enhance the dignity of the central shrine and express the sense of regal honour that characterises the mode of divine service in the system of image-worship. The exact location of the Arcanāmaṇḍapa is first described. It may be situated a cubit away from the limit of the Antarmaṇḍala. In this case the limit of the Uttara or Pāduka of the Pūjāmaṇḍapa will come where a cubit measure of space is found extended in front, beyond the boundary line of the Antarmaṇḍala. In the second alternative case of disposition the centre of the Arcanāmaṇḍapa must be made to coincide with the centre of the intervening area between the Bāhyottara of the sanctum sanctorum and Ārūḍhottara (i.e. internal Uttara) of the Antahārā. Coming to the shape of the Pūjāmaṇḍapa, it will be noted that the shape is described as Turyāśra or square, having its own Adhiṣṭhāna. In other words, it will be a structure having a square base surmounted by a pyramid above. Its Adhiṣṭhāna will be of the same type and description as the Adhiṣṭhāna of the *Sanctum Sanctorum.* Thus, if the Adhiṣṭhāna of the temple is of the Pādabandha class, that of the Arcanāmaṇḍapa will also be of the same class. The Arcanāmaṇḍapa will possess a single

616. Bulletin of the Boston Museum.

Uttara supported by four pillars; in this case, it will be small in size. If the size is bigger, then, it will have two uttaras borne by sixteen pillars. Here, the internal *Uttara* (Ārūḍhottara) will be supported by 4 pillars and the outer Uttara (Bāhyottara) by twelve. Thus there will be two uttaras and sixteen pillars for the Arcanāmaṇḍapa of larger size. A vernacular interpreter, Dāmodaran Nambūdirippāḍ, adds that the Arcanāmaṇḍapa must possess an opposite Yoni and it must be so because the Maṇḍapa should face the main shrine.

In the last quarter of the stanza the author tells us that this Maṇḍapa must be adorned with such ornamental motifs as Makuṭa (Stūpikā) and the like, which embellish the main shrine. In this list of ornamentation of the top of the Maṇḍapa may be mentioned Valabhi, Kapota, etc. The phrase "समकुटाद्यालङ्क्रियालङ्कृतम्'' tends to suggest two points. One is that the Stūpikā or finial (Makuṭa) employed at the top of the Maṇḍapa is a decorative element, rather than a constructive one. Secondly, the primary reference to the top-portion suggests that beneath the Prastara the structure is open on all the sides. The Maṇḍapa being a pillared hall and not enclosed space, there is no question of wall-decorations in it, such as the Kūṭas and Śālās. Any ornamentation that can be wrought in the said portion below the Uttara and above the Adhiṣṭhāna will be restricted to pillars, and all the wall decorations cannot be displayed in the case of the Maṇḍapa structure, owing to the absence of walls in such a structure. Hence the reference relates primarily to the ornamentation of those structural parts which are possessed in common by both the main shrine and its accessory structure, such as the Adhiṣṭhāna, Stambha, Prastara, etc. Śaṅkara quotes an authority whose name is not mentioned, and this authority states the dimensions of the Maṇḍapa, the number of floors it might possess, the nature of its decoration and composition, which should not be different from that of the Prāsāda. It runs as follows:[617]—

"समं त्रिपादमर्धं वा प्रासादस्य तु मण्डपम् ।
पुरस्तादुक्तमानानां तत्त्रिद्व्येकतलं तु वा ॥
प्रासादतुल्यालङ्कारं तत्समाङ्गं च मण्डयेत् ॥"

617. *Tantrasamuccaya* with *Vimarśinī*, Part I, p. 95 (T. S. S. Ed.).

STANZA 77

The limit of the Antarmaṇḍala has been described and the extremity of the remaining Prākāras remain to be fixed. In this stanza, the author sets to describe the outer-limit of the remaining Prākāras. The outer wall of the Antahārā should be built beyond its own Daṇḍa extremity. The Antahārā described in the succeeding stanza is composed of two Maṇḍapas on either side of the main shrine, one Maṇḍapa at its back, and these three structures are linked together. The wall that is here referred to is the one which should be constructed beyond the Daṇḍa extremity of the Antahārā, which is composed of circumambulatory construction as described above, viz. the construction excluding the front structure. The Antahārā made up of structures on either side of the shrine and at the back has one Uttara and this lies beyond the Daṇḍa extremity. The front structure known as Sabhā has two Uttaras, Ārūḍhōttara and Bāhyottara. The Ārūḍhottara of the Sabhā keeps line with the circumambulatory structure of the Antahārā running round the main shrine on the three quarters (two sides and the back of the main shrine). Extending outwards, there is situated the Bāhyottara or the external Uttara. We have observed on a previous occasion that the construction of two Uttaras, one Ārūḍha and the other Bāhya, is a necessity where the structure is of a large size. The Sabhā built in front is comparatively a larger structure than the three square structures built on the three sides round the shrine. The three square structures which surround the main shrine on its three sides are locally termed the 'Cuttambalam' (circumambulatory structure), and the Sabhā, or the hall built in front of the sanctum sanctorum, is called the 'Valiambalam' (big structure). There is no doubt that the Sabhā is bigger than the surrounding three square sructures, and by reason of its larger size it demands two Uttaras, internal and external. Based on this presence of two Uttaras, the Daṇḍa extremity of the Sabhā is said to be of two kinds. It may be fixed with reference to either the extremity of the Ārūḍhottara or the extremity of the Bāhyottara. In the third enclosure Madhyahārā, which is said to contain the structure carrying lights, the Daṇḍa extremity should rest where the flame of the lamp extends. The Daṇḍa extremity of the fourth enclosure (i.e. the Bāhyahārā) will be inside the internal Uttara. In the case of the Mahāmaryādā the Daṇḍa extremity will lie at the external face of the outer uttara.

STANZA 78

The process of making the Antahārā is next described. There should be built three square Maṇḍapas on the three quarters. Of these, one will be behind the main shrine, and two on the two sides (Pārśvas). Each one of these Maṇḍapas must have the Yoni of its quarter, which is its Yoni proper. The qualifying expression "स्वमूलयोन्यन्वितम्" is interpreted by Śāṅkara[618] in this sense, and he explains it as "स्वस्वदिग्भवयोन्युपक्लृप्तम्". Thus, according to the commentator Śaṅkara, this text means that the structure should be given the Yoni of the place where it stands. The Vivaraṇakāra, on the other hand, finds in the expression an alternative suggestion that these Maṇḍapas may pρssess the Yoni of the Mūla (i.e. the central) shrine. Says he:[619]

"स्वमूलयोन्यन्वितम्—स्वयोन्यन्वितं, मूलयोन्यन्वितं वेत्यर्थः।। स्वयोनिर्दिग्योनिः।।"

Śaṅkara, however, understands the term in only one sense, namely, that each Maṇḍapa must have the Yoni of the quarter in which it stands. These square Maṇḍapas, built on the three main quarters, should then be extended to the corners, and the intervening spaces must then be connected or linked together. These then, the three Maṇḍapas on the three sides and the extended and connecting structures, constitute what is termed the '*Antahārā*'. This surrounding structure around the three sides of the central shrine is locally known as 'Cuttambalam' and the structure which comes in the front, which is described in the next stanza, is termed 'Sabhā' in Sanskrit, and 'Valiambalam' in the vernacular.

STANZA 79.

This stanza treats of the construction of the Sabhā. The Sabhā should be built in front of the shrine. Along the Daṇḍa extremity of the Antahārā together with its Mukhāyāma—(for, the Daṇḍa extremity of the Prākāra is inclusive of its Mukhāyāma)—fix up an uttara in the sabha in front. The uttara, here referred to, forms the external uttara of the Antahārā and it runs through the length of the Sabhā. Reference was made in the previous stanza to structures on either side

618. *Tantrasamuccaya* with *Vimarśinī*, Part I, p. 96 (T. S. S. Ed.).
619. *Vivaraṇa*, Ms. No. 1994 (G.O.M.L., Madras).

of the central shrine. Now, the top and base of the Uttara which extends through the length of the Sabhā should be securely fastened to the Uttara of the Pārśvahārā (structure on either side of the central shrine). After having fixed the uttara that runs along the length of the Sabhā to the uttaras of the wings (Pārśvahārās) the author directs us in the latter part of the stanza to fix the breadth of the Sabhā and then to place two uttaras, as the nature of the structure demands. The Yoni that is assigned to it should be proper to the quarter in which it is situated. There are fixed and approved proportions, known as 'Guṇa-vibhāga' and 'Padavistāra', and the breadth that is to be accepted for the Sabhā should conform to the well-known proportion. *Guṇavibhāga* is a formula which involves the division of the perimeter into certain well-known parts, and the breadth that is to be given to the Sabhā should be determined with reference to any number of such well-known parts into which the perimeter may be divided. The formula 'Guṇavibhāga' is so called because it involves Guṇa (āvṛtti) of Vibhāgas or parts. The number of the uttaras such as the Ārūḍha and others will be made as befits the size and structural necessity of the Sabhā.

In a Malayālam Manuscript of the *Tantrasamuccaya*[620] a stanza is found stated which deals with the formula of Guṇavistāra. It runs thus:—

" षड्ढस्तादिकवंशमानिचयेऽष्टघ्ने सदिक्सङ्ख्यके
त्र्यंशीकृत्य तदेककेन गृहनाहे कल्पितेऽर्थीकृते ।
वेदघ्ने रविविश्ववासवविकारात्यष्टिसाष्टादशा-
द्वन्द्वे मध्यहृते फलेन विततिः तन्न्यूननाहाततिः ॥"

Multiply the desired length of the uttara beginning with 6 cubits, etc., by 8. Add on to it any number, such as 1, 5 etc. which stands to represent the quarter such as the East etc. Divide this result by 3 and assign one part thereof to the perimeter of the 'Uttara'. Divide this perimeter by two, and then multiply the result by 4. Divide this by any one of the numbers 12, 13, 14, 16, 17, 18, 20, 21. The result got is the Vistāra. Then from half the perimeter deduct this vistāra and the length is obtained.

620. *Tantrasamuccaya*, R. No. 4128 (G.O.M.L., Madras).

K. Nīlakaṇṭhan Āśāri in a vernacular version, called *Śilpiratnam*, observes that Guṇāṁśa should be secured as follows: Divide half the perimeter by any number beginning with 8, and ending with 32, and four parts thereof will constitute the Vistāra and the remainder the length. In this connection the following stanza from the *Manuṣyālayacandrikā* which describes the Guṇavistāra is noteworthy.

The *Manuṣyālayacandrikā*[621] states :—

" नाहार्धे द्वादशाद्यैस्त्रिभिरपि च विभक्तेऽथवा षोडशाद्यै
विंशत्याद्यैश्च तत्त्वादिभिरपि मनुयुग्मादिभिर्दन्तसंख्यैः ।
तत्तत्तुर्यप्रहीणैरथ विततिरुदध्यंशतः शेषभागै-
र्दीर्घो वस्वङ्कपङ्क्त्यादिभिरपि गुणविस्तारमाहुर्मुनीन्द्राः ॥"

STANZA 80.

In this verse the author describes the process employed in the Pādasūtra type of Sabhā. The desired perimeter of the Gṛha (sanctum) being divided into equal halves, from one part (i.e. from half the perimeter) deduct twice the breadth of the Uttara. The remainder having been divided by any even number beginning with 4, give one part thereof to the breadth, and the remaining parts to the length. Then, add to the above measure on all the sides, twice the breadth of the Uttara already deducted. This is the process that should be employed in the Sabhā known as 'Pādasūtra'.

STANZA 81.

In the four stanzas that follow, the author deals with the location and and construction of the structure called 'Balipīṭha'. It is a big oblation-stone (Valiabalikallu, as the Vernacular interpreters call it), built in front of the *sanctum sanctorum*. It also possesses various parts and mouldings which are met with in the construction of the *sanctum sanctorum*. This Balipīṭha is found installed within a structure, in the case of some shrines; and in the open space in some cases. From the centre of the *sanctum sanctorum*, in front and outside of it, 2½, 3, 3½, 5, 6, or 7

621. *Manuṣyālayacandrikā*, Ch. IV, stanza 8.

Daṇḍas away, should be installed the Balipīṭha in its own structure. According to our author the Balipīṭha should be put up in a structure, built for the purpose of housing it. In actual practice, though there are instances of permanent structures to house the Balipīṭha, there are also exceptions, and in the latter case of absence of permanent structures temporary sheds are put up at the time of certain festive occasions.

The following quotations[622] from the *Pāśupata* and the *Mañjarī* support the statement of Nārāyaṇa with respect to the location of the Balipīṭha: —

Thus the Pāśupata says:

"पञ्चषट्सप्तदण्डाग्रे कल्पयेद् बलिपीठिकाम् ॥"

and the Mañjarī: —

"पीठं प्रासादमध्यादथ बलिविधये पञ्चषट्सप्तदण्डमुक्त्वा ॥"

STANZA 82.

This stanza lays down the dimension (height and breadth) of the Balipīṭha. The height of the Balipīṭha from its Pāduka to the top of its Padma will be equal to the height of the Pūjāpīṭha (*i.e.* the pedestal on which the idol stands) or one-sixth less than this height; or, it will be as much as the height of the Garbhagṛha as far as its Prati (i.e. the height of the basement of the Garbhagṛha), or, the height of the Prāsāda as far as its Prati (i.e., the height of the basement of the Prāsāda). Having divided the height chosen for the Balipīṭha into 10 parts, seven parts thereof will be assigned for the breadth (which is the breadth of the Uttara moulding) of the Balipīṭha. The various divisions and mouldings which enter into the composition of the Balipīṭha will be done on the pattern of those of the principal structure. In other words its different parts and mouldings will be governed by the same principles of proportion which regulate the construction of the main shrine. The dimension of the Balipīṭha set forth here is supported by the following authoritative version of the *Viṣṇusaṃhitā*[623] : —

622. *Tantrasamuccaya* with *Vimarśinī*, Part I, page 97 (T. S. S. Ed.).
623. *Viṣṇusaṃhitā*, Paṭala XIX, 26, 27 (T. S. S. Ed.).

" बलिपीठसमुत्सेधो गर्भागारप्रतेः समः ।
पूजापीठसमो वापि षड्गुनो वा प्रकीर्तितः ॥
उत्सेधं दशधा कृत्वा सप्तांशस्तस्य विस्तरः ।"

STANZA 83.

The proportion which governs the division of the Balipīṭha into various parts or mouldings forms the subject-matter of this stanza. The height of the Balipīṭha having been divided into 27 parts, assign parts to each of the mouldings from bottom upwards as shown in the list given below:—

Pāduka	1
Jagatī	4
Kumuda	3
Kumudapaṭṭikā	1
Gala	10
Kambu	1
Nidrava	1
Kapota	3
Agrapaṭṭi	1
Padma	2
Total parts	27

This proportion is, as in the previous case, supported by the statement of the *Viṣṇusaṃhitā*. Compare the following lines from the *Viṣṇusaṃhitā*:[624]—

" सप्तविंशतिधा कृत्वा सममेव तदुच्छ्रयम् ॥
एकांशं पादुकं कुर्याच्चतुर्भिर्जगतीं पुनः ।
त्रिभागं कुमुदं चैव तथैकांशेन पट्टिकाम् ।
दशांशं कण्ठमित्याहुरंशाभ्यां कम्बुनिद्रवौ ॥
त्रिभिः कपोतमित्याहुरेकांशेनाग्रपट्टिकाम् ।
द्व्यंशकं पद्ममन्ते स्यादेतत् पीठस्य लक्षणम् ॥"

624. *Ibid.*, 27-30.

STANZA 84.

In this stanza the author gives another alternative for the division of the Balipīṭha into parts. Having divided the height of the Pīṭha into 32 parts, allot parts to mouldings from bottom upwards according to the direction given below:—

Pāduka	1½
Jagatī	5½
Kumuda	5
Kumudapaṭṭi	1
Antari	1
Prati	2
Vedi	4
Gala	4
Valabhyuttara	2½
Kapota	2½
Paṭṭikā	1
Padma	2
Total parts	32

625. Vide the *Tantrasamuccaya* with *Vimarśinī* (T. S. S. Ed.), Part I, pp. 99-100.

(a) *Gurudevapaddhati* (T. S. S. Ed.), Uttarārdha, Paṭala XXXV, st. 44.

(b) "क्षुद्राणां ... पञ्चमं भवेत" *Mayamata* (T. S. S. Ed.), Ch. XXXIII, Sts. 8, 9, 10.

(c) "मध्यमानां तु ... भवन्ति हि" *Gurudevapaddhati* (T. S. S. Ed.) Uttarārdha, XXXV, 46-48.

(d) "अन्तर्मण्डलभित्तेः ... शिरोघनं" *Ibid.*, 48-50. "तस्माद् द्वित्र्यङ्गुल" * etc.

(e) "उत्तरान्तौ ... भित्तिरिष्यते" Maya quoted in the *Gurudevapaddhati* (T.S.S. Ed.), Part IV, p. 351; Vide also *Mayamata* (T. S. S. Ed.), XXIII, 20, 21.

(f) Vide *Mayamata* (T. S. S. Ed.), XXIII, 22, 23; *Gurudevapaddhati* (T. S. S. Ed.), Uttarārdha, Paṭala XXXV, Sts. 50, 51.

(g) *Gurudevapaddhati*, XXXV, 83 (2), 84 (1).

(h) Maya is similarly quoted in the *Gurudevapaddhati* (T. S. S. Ed.), Part IV, p. 354; also vide *Mayamata* (T. S. S. Ed.), Paṭala XXV, Sts. 1, etc.

At the end of the commentary Vimarśinī on the section on Pañca-prākāras, Śaṅkara presents a collection of allied texts on the details of the topic as follows[625]:—

"प्रासादभवनादीनां रक्षालङ्कारसिद्धये ।
वप्राणि क्रमशः कुर्यात् पञ्चत्रिद्व्येकसंख्यया ॥"(a)

अत्र मय ओह—

"क्षुद्राणामल्पहर्म्याणां खव्यासार्धप्रमाणतः ।
अन्तर्मण्डलकं कुर्यात् स त्रिहस्तं तु तत्समम् ॥

द्वितीयं च तृतीयं च तस्मात् पञ्चकराधिकम् ।
तस्मात् स सप्तहस्तं तु तत्समं स्याच्चतुर्थकम् ॥

नवहस्तसमायुक्त तत्समं पञ्चमं भवेत् ।(b)
मध्यमानां तु मूलार्धमन्तर्मण्डलकं भवेत् ।
ततः शरर्षिजगतीरुद्रहस्तं यथाक्रमम् ॥

वप्रान्तरालविस्तारः प्रोक्तः प्राकारपञ्चके ।
अथोत्तमानां मूलार्धं प्रथमं त्वथ चर्षिभिः ॥

नन्दरुद्रातिजगतीहस्तैर्हारा भवन्ति हि ।(c)
अन्तर्मण्डलभित्तेः स्याद् विष्कम्भः सार्धहस्तवान् ॥

तस्मात् *त्र्यङ्गुलाधिक्यात् क्रमात् साला भवन्ति हि ।
तत्तद्विष्कम्भमानात् तु त्रिगुणं वा चतुर्गुणम् ॥

प्राकारतुङ्गता ज्ञेया स्वोच्चाष्टांशं शिरोघनम् ।(d)
उत्तरान्तोच्छ्रिता वा स्यात् कुम्भमण्ड्यन्तकोऽपि वा ॥

मसूरकादिवर्गाढ्या खण्डहर्म्यादिमण्डिता ।
बुद्बुदार्धेन्दुशीर्षा वा ऋजुर्वा भित्तिरिष्यते ॥"(e)

इति। तथा च—(f)

“ क्षुद्राल्पभित्तिविस्तारा हस्तादारभ्य पूर्ववत् ।
क्रमात् त्रिव्यङ्गुलाधिक्याद् वर्धयेत् सार्धहस्ततः ॥
सोत्तरा वाजनच्छत्रशीर्षवत्यश्च भित्तयः ।”

इत्यदि ।

“ गोपुराणामथो लक्ष्म यथावदपि कल्प्यते ।
प्रतिवप्रं तु कर्तव्यं द्वारे द्वारे तु गोपुरम् ॥”(g)

अत्र (h)मयश्च—

“ क्षुद्राल्पमध्यमुख्यानां वप्राणां स्वप्रमाणतः ।
मूलप्रासादविस्तारे सप्ताष्टनवभागिके ॥
दशैकादशभागे च तत्तदेकांशहानितः ॥
द्वारशोभादिविस्तारं गोपुरान्तं भवेत् क्रमात् ।
क्षुद्राल्पकानां धाम्नां स्यान्मानमेवं यथोदितम् ॥
मध्यानां मूलधाम्नस्तु व्यासे वेदेषुभागिके ।
षट्सप्ताष्टांशके वा स्याद् भागोनं गोपुरं पृथक् ॥
त्रिभागैकांशमर्धं च द्विभागं स्यात् त्रिभागिके ।
चतुर्भागे त्रिभागं च पञ्चांशे चतुरंशकम् ॥
द्वारशोभादिविस्तारं श्रेष्ठानां गोपुरं मतम् ।
तुङ्गं तु गोपुराणां स्यात् सप्तांशे रुद्रभागिकम् ॥
चतुरंशे षडंशोच्चं पञ्चांशे सप्तभागिकम् ।
सप्तांशं तु चतुर्भागे नवभागे तु पञ्चके ॥
द्विगुणं वा यथासंख्यं द्वारायतनतुङ्गता ॥”

इत्यादि ॥

BHĀVANĀVIVEKA

BY

MAṆḌANAMIŚRA

WITH

VIṢAMAGRANTHIBHEDIKĀ

BY

NĀRĀYAṆA

Edited with Introduction

BY

V. A. RAMASWAMI SASTRI

AND

K. A. SIVARAMAKRISHNA SASTRI

[1]सत्ताया एव साध्यरूपेण धातुनोपादानात् साध्यताप्रतीतिः, न पुनः प्रत्ययेन भावनाया अभिधानात्। सत्ता भाव इति च सत्ताया धातुनैव सिद्धरूपेण उपादानात् सिद्धरूपप्रतीतिः, न पुनः प्रत्ययेन भावनाया अनभिधानात्। व्यापारसंस्पर्शकृतस्य साध्यत्वस्य [2]पच्यादौ निश्चयात्। इहैव तर्हि व्यभिचारः 'यजते यजमानः',

---

प्रस्तुतं व्याख्यायते—अस्त्यादावपि शब्दाद्भावना प्रतीयते इत्युक्तम्। तत्र हेत्वपेक्षायामाह—अन्यथा अस्ति भावस्सत्तेत्यभेदादिति ॥ यद्यस्तीत्यादौ शब्दाद्भावना नावगम्येत, तदा अस्ति भावस्सत्तेत्यत्र सर्वत्र बुद्धिभेदाभावप्रसङ्गः। यथा भावशब्देन च सिद्धरूपो धात्वर्थः प्रतीयते एवमस्तीत्यनेनापि प्रतीयेत। नच तथा प्रतीयते, किन्तु साध्यस्वरूपतया। तच्चास्तीत्यत्र धात्वर्थातिरिक्तव्यापाराभिधानाभावे विरुध्यते।

तत्र शङ्कते—सत्ताया एव साध्यरूपेण धातुनोपादानात्साध्यताप्रतीतिः, न पुनः प्रत्ययेन भावनाया अभिधानात्। सत्ता भाव इति च सत्ताया धातुनैव सिद्धरूपेणोपादानात् सिद्धरूपप्रतीतिः, न पुनः प्रत्ययेन भावनाया अनभिधानात् इति। [3]अस्योत्तरमाह—व्यापारसंस्पर्शकृतस्य साध्यत्वस्य पच्यादौ निश्चयादिति ॥ अयमर्थः—पच्यादौ व्यापारान्तर[4]सम्पर्ककृतं धात्वर्थस्य साध्यत्वमवधारितम्—कः पाकः पचतीत्यादौ। एवञ्च सति अस्त्यादावपि धात्वर्थसाध्यत्वं व्यापारान्तरसंस्पर्शकृतमेवेति निश्चीयते। पुनरपि प्रत्ययस्य भावनाव्यभिचारं विषयान्तरे चोदयति—इहैव तर्हि व्यभिचारः 'यजते यजमानः' 'पच्यन्ते स्वयमेव तण्डुलाः' इति ॥ अयमर्थः—यदि कर्मकर्तृविषयस्य पचतेर्धातोः यजमानकर्तृविष-

---

१. सत्ताया एव व्यापारात्मना प्रतीतेः भेद इति चेत्—न, व्यवहारान्तरसंस्पर्शकृतस्य—**क, ख, ग, घ, ङ.**

२. पचत्यादिषु—**ख**; पचादौ—**ङ.**

३. इतः पूर्वं 'सत्ता भाव इति च सत्ताया धातुनैव सिद्धरूपेणोपादानात्' इत्यधिकं वर्तते—**च** मातृकायाम्।

४. संस्पर्शकृतं—**छ.**

'[१]पच्यन्ते स्वयमेव तण्डुलाः' इति । [२]व्यापारान्तरोपगमे वा धातोरव्यभिचारः । न, अभ्युपगमात्[३] लेनाभिधानस्य, तन्निबन्धनत्वात्त-

---

यस्य च यजेः भावनां प्रति व्यभिचार उच्यते त्वया, तर्हि इहापि(हैव) मयैव(यापि) प्रत्यस्य भावनां प्रति व्यभिचार उच्यते इति । अथेह प्रत्ययव्यभिचारदोषपरिजिहीर्षया विक्लित्तिव्यतिरिक्तस्तण्डुलसमवायी, द्रव्यत्यागसङ्कल्पातिरिक्तश्च यजमानसमवायी कर्तृव्यापारोऽभ्युपगम्येत, तदा धातोर्व्यभिचाराभावात्कर्तृव्यापारस्य तदभिधेयत्वानभ्युपगमो निर्निबन्धनस्स्यादित्येतदाह—व्यापारान्तरोपगमे वा धातोरव्यभिचार इति । अस्योत्तरमाह—न, अभ्युपगमाल्लेनाभिधानस्य [४]तन्निबन्धनत्वात्तस्यान्यथा(पि) सिद्धेः पाकादिषु व्यभिचारात् इति ॥ यदुक्तम्—[५]व्यापारान्तराभ्युपगमे धातोर्व्यभिचाराभावात् तस्य तदभिधेयत्वं प्राप्नोतीति, तन्निषेधाय नेत्युक्तम् । तत्र हेतूक्तिः—अभ्युपगमाल्लेन [लकारेणाभ्युपगमात्] अभिधानस्येति । विक्लित्त्यादिव्यतिरिक्तस्य व्यापारस्य लेन लकारेणाभिधानमभ्युपगम्यते, न धातुना । [६]अतो व्यापाराभ्युपगमेऽपि न तस्य धात्वभिधेयत्वं प्रसज्यते । कथं पुनः कर्तृव्यापारस्य लकारेणैवाभिधानमभ्युपगम्यते? न धातुना? अन्वयव्यतिरेकाविशेषेऽपीत्याशङ्कयोक्तम्—तन्निबन्धनत्वात् तस्यान्यथापि सिद्धेरिति ॥ तन्निबन्धनत्वात्—लकारनिबन्धनत्वात्; तस्य—कर्तृव्यापारस्य; अन्यथापि—धातोः तदभिधानसामर्थ्यकल्पनेन[७] विनापि; सिद्धेः—उपपत्तेरित्यर्थः ॥

ननु विपर्ययेणापि [८]अन्यथासिद्धौ सम्भवन्त्यां कोऽत्र विनिगमनायां हेतुः? कर्तृव्यापारप्रत्ययस्य धात्वन्वयव्यतिरेकयोरन्यथासिद्धिः, न पुनः प्रत्यया-

---

१. पच्यते स्वयमेवेति—**क, ख.**

२. व्यापारोपगमे—**ङ.**

३. तिङा—**ग, घ**; अभ्युपगमात् न व्यभिचारः—**ङ.**

४. निर्निबन्धनत्वात्—**च.**

५. 'व्यापारान्तराभ्युपगमे' इत्यारभ्य 'अभ्युपगमात्' इत्यन्तो ग्रन्थः नास्ति—**छ** मातृकायाम् ।

६. 'अतः' इत्यारभ्य 'अभ्युपगम्यते' इत्यन्तो ग्रन्थः नास्ति—**छ** मातृकायाम् ।

७. संकल्पनेन—**छ.**

८. अन्यथासिद्धाः संभवन्ति, एकोऽत्र—**छ.**

स्या[१]न्यथा(पि)सिद्धेः पाकादिषु व्यभिचारात्, [२]भेदेनानिदर्शनादप्रतीतेः,[३] [४]इतरत्र तैर्निष्कर्षणात्, [५]अतुल्यार्थत्वात्तन्निष्कर्षः, सा-

---

न्वयव्यतिरेकयोरि(ती)त्याशङ्कयोक्तम्——पाकादिषु व्यभिचारादिति ॥ 'पाकः', 'यागः' इत्यादिषु धातोः कर्तृव्यापाराभिधानं प्रति व्यभिचारात् आख्यातपदेऽपि घञाद्यन्तप्रयोगप्रसिद्धविक्लित्त्यादिमात्राभिधानेन चरितार्थत्वान्न कर्तृव्यापारवाचित्वं ग्रहीतुं शक्यत इत्यर्थः । कथं पुनः पाकादिषु धातोः विक्लित्त्यादिव्यतिरिक्तकरोत्यर्थाभिधानं प्रति व्यभिचार इत्याशङ्क्याह——भेदेनानिदर्शनादप्रतीतिरिति ॥ पाकादिषु विक्लित्त्यादि[षु]व्यतिरिक्तस्य कर्तृव्यापारस्य भेदेन निदर्शनाभावात् अप्रतीतिरर्थभेदस्य । एतदुक्तं भवति——अर्थभेदप्रतीतिनिमित्तकस्य भेदनिदर्शनस्य 'पाकः क्रिया' इत्येवंरूपस्य नियमेनादर्शनादर्थभेदप्रतीत्यभावोऽवगम्यते । ततश्चार्थभेदाभावोऽवगम्यते । अतः पाकादिषु धातोः करोत्यर्थाभिधानं प्रति व्यभिचार इति ॥

नन्वर्थस्य भेदेनानिदर्शनाद्धातोरर्थभेदो मा भूत् । किन्त्वेक एवार्थोऽस्तु धातोः । स च विक्लित्त्यादिविलक्षणः कर्तृव्यापार एव कस्मान्नेष्यते इत्याशङ्क्याह——इतरत्र तैर्निष्कर्षणात् अतुल्यार्थत्वात्तन्निष्कर्ष इति ॥ अयमर्थः——इतरत्र तिङन्ते पदे तैः पाकादिभिर्धात्वर्थैः प्रत्ययाभिधेयस्य कर्तृव्यापारस्य निष्कर्षणं पृथक्करणं दृश्यते 'पाकं करोति' इति । अत्र हि पाकमिति द्वितीयान्तेन पदेन धात्वर्थः कर्मतया निर्दिश्यते । करोतीत्यनेन च प्रत्ययार्थः क्रियात्वेन । स चायं निष्कर्षः धात्वर्थात्कर्तृव्यापारस्य प्रत्ययाभिधेयतया अतुल्यार्थत्वादेव धातुप्रत्यययोरुपपद्यते । एतदुक्तं [६]भवति——(यदि) व्यापारादाख्यातार्थादर्थान्तरे विक्लित्त्यादि-

---

१. तस्यासिद्धे——ङ.
२. भेदेनानिर्देशात्–क; भेदानां निर्देशात्–ख.
३. अतः प्रतीतेः——ङ.
४. इतरत्र भेदेन निष्कर्षणात्——क, ख; इतरत्राख्याते भेदेन निष्कर्षणात्–ग,घ,ङ.
५. अन्यथा तुल्यत्वादनिष्कर्षणं स्यात्——क, ख, ग, घ, ङ.
६. भवति–यत्कर्तृव्यापारात्——छ.

मान्यविशेषयोः[१] साध्यसाधनभावायोगात्[२], सामान्यस्यासाध्यत्वात्, [३]अनभिधेयाख्यानापत्तेः ।

लक्षणे धातुर्न वर्तेत, तदा तदर्थ(र्थात्)भेदेन कर्तृव्यापारस्य[४] करोत्यर्थस्य निदर्शनं नोपपद्येत । तस्मान्न कर्तृव्यापारो धात्वभिधेय इति ॥

ननु पाकादिर्धात्वर्थविशेषः, तत्सामान्यं करोत्यर्थः, इति सामान्यविशेषभावनिबन्धनाद्भेदान्निष्कर्ष उपपद्यत इत्याशङ्क्याह—सामान्यविशेषयोः साध्यसाधनभावायोगादिति ॥ सामान्यविशेषयोः साध्यसाधनभावो नोपपद्यते, अन्यत्रादर्शनात् । तत्रैव दूषणान्तरमाह—सामान्यस्यासाध्यत्वादिति ॥ अयमर्थः—साध्यस्वभावो हि करोत्यर्थो गम्यते, न सिद्धस्वभावः। साधनरूपो हि सः । न च तथारूपत्वं सिद्धत्वेऽवकल्पते, घटादेः तदभावात्, तच्च[।] साध्यस्वभावत्वं तस्य सामान्यमात्रत्वे नोपपद्यते। गुणविशेषत्वाद्धि सिद्धरूपो धात्वर्थ उपेयते । कथं तत्समवायि सामान्यं साध्यस्वभावं स्यात्? अतः क्रियाकारकयोरर्थयोः पचतीत्यत्र निदर्श्यमानत्वान्न धात्वर्थविशेषसामान्ययोरयं निष्कर्षः—'पाकं करोति' इति (इति)॥ पुनरपि तत्रैव दूषणान्तरमाह—अनभिधेयाख्यानापत्तेरिति ॥ अयमर्थः—यदि धात्वर्थसामान्यविशेषयोः एष निष्कर्षः स्यात्, तदानभिधेयस्याख्यानमापद्यते। कथम्? पचतीत्यस्मिन्पदे केनांशेन धात्वर्थसामान्यमभिधीयत इति वाच्यम्। न तावत्प्रकृत्यंशेन पचिना, तस्य विशेषाभिधानात् । नापि प्रत्ययांशेन, तस्य धात्वर्थसामान्यवाचित्वानभ्युपगमात् । अस्मत्पक्षे तु पाकभावनयोः प्रकृतिप्रत्ययाभिधेयत्वात् तयोरेव च पाकं करोतीति निदर्श्यमानत्वान्नानभिधेयाख्यानापत्तिः । तस्माद्धात्वर्थातिरिक्ता भावना प्रत्ययाभिधेया अस्तीति निश्चीयते ॥

---

१. विशेषयोश्च—**ग, घ, ङ.**

२. साध्यस्य साधनत्वायोगात्—**ङ.**

३. अनभिधेयाख्यानापाताच्च—**क**; ... ...ख्यानापत्तेश्च—**ख**; ...ख्यानानुपपत्तेश्च-**ग, घ**; अनभिधानाख्यानानुपपत्तेश्च-**ङ.**

४. व्यापारभेदस्य—**च.**

भवतु धात्वर्थव्यतिरिक्ता भावना प्रत्ययाभिधेया। धात्वर्थस्तु पचत्यादौ विक्लित्त्यादिलक्षण एवेत्येतन्न मृष्यते। स त्वधिश्रयणादिलक्षणः कर्तृव्यापार एव। यस्त्वन्योऽधिश्रयणादेः परिस्पन्दरूपाद्व्यापारादान्तरः प्रयत्नाख्यः कर्तृव्यापारः स प्रत्ययार्थो भवतु। एवमप्युपपद्यते धातुप्रत्यययोः अर्थभेदनिदर्शनम्। क्रियावचनत्वं च धातूनामभियुक्तैरभ्युपगतमेवं सत्युपपन्नं स्यात्। उक्तं हि—'क्रिया धात्वर्थमात्रं स्यात्' इत्यादि, 'क्रियावाचिनो धातवः' इति च। विक्लित्त्यादिलक्षणगुणविशेषधात्वर्थपक्षे तु तदनुपपन्नं स्यात्। उच्यते—उक्तोत्तरमेतत्। उक्तं हि—कर्मकर्तृविषये(य)पचेरधिश्रयणादिलक्षणकर्तृव्यापाराभिधानं प्रति व्यभिचार इति ॥

ननु तत्र व्यभिचारः प्रत्ययस्याप्यविशिष्टः, व्यापाराभ्युपगमे धातोरव्यभिचार इत्यप्युक्तम्। सत्यमुक्तम्; अस्योत्तरमप्युक्तम्—पाकादिषु धातोः कर्तृव्यापाराभिधानं प्रति व्यभिचारात् लकारेणैव तस्याभिधानमिति ॥

ननु घञन्ते पाकादौ अर्थभेदनिदर्शनाभावाद्व्यभिचारः तिङन्ते च तद्भावादव्यभिचारात् प्रत्ययस्ये(स्यै)व करोत्यर्थात्मिका भावनेत्युक्तम्। सा च करोत्यर्थात्मिका भावना प्रयत्न एव, नाधिश्रयणादिग्रा(र्वा)ह्यो [१]व्यापार इति इदानीं वदामः। तत्र कथमुक्तोत्तरत्वमिति। उच्यते—[२]यदा प्रयत्न एव भावना प्रत्ययार्थः, तदैतदेवं स्यात्; यदा पुनः कर्तृव्यापारमात्रं सिद्धकर्तृव्यापारमात्रं वा चेतनाचेतनसाधारणं भावना प्रत्ययार्थः स्यात्, तदैतन्नोपपद्यते। नचात्मकर्तृकः प्रयत्न एव भावनेत्येतदप्यवोचाम—'आत्मकर्तृकमेव' इत्यादौ। ननु प्रयत्नपरिस्पन्दयोरुभयोरपि भावनात्वाभ्युपगमेऽपि चेतने प्रयुज्यमानस्याख्यातस्य प्रयत्न एवार्थः, अचेतने प्रयुज्यमानस्य परिस्पन्दः। ततश्च पचतीत्यत्र देवदत्तस्य(स्थ)प्रयत्नाख्य-

१. व्यापार इदानीमिति वदामः—च.

२. 'यदा' इत्यारभ्य 'स्यात्' इत्यन्तो ग्रन्थः नास्ति—च मातृकायाम्।

व्यापारवचनत्वात्प्रत्ययस्य अधिश्रयणादिः धात्वर्थ एव कस्मान्नेष्यते ? । उच्यते—अचेतने प्रयुज्यमानयोः धातुप्रत्यययोः यावर्थौ समधिगतौ—कर्तृव्यापारः, तत्फलभूतो गुणविशेषश्च संयोगविभागलक्षणः, तावेव तयोश्चेतनविषययोरप्यर्थौ ग्राह्यौ, विरोधाभावात् । अतः पचत्यादौ न प्रयत्न एव केवलः प्रत्ययार्थः, नापि परिस्पन्द एव केवलः, किन्तु कर्तृव्यापारमात्रम् । जानातीत्यादौ तु आत्मकर्तृक एव व्यापारः । अग्निर्ज्वलतीत्यादौ तु परिस्पन्द एव । धात्वर्थस्तु सर्वत्र व्यापारफलभूतो गुणविशेष एवेति मतमाचार्यस्य इति । स्पष्टीकरिष्यति चैतदुपरिष्टात्स्वयमेव ।

यच्चोक्तमभियुक्तैः क्रियावचनत्वं धातोरङ्गीकृतमिति, तत्रोच्यते—परपरिकल्पित(प्र)-क्रियानुसारेणापि कदाचिदन्यपरत्वादनभिप्रेतार्था अपि गिरः प्रवर्तमाना दृश्यन्ते विचक्षणा-नामित्यविरोध इति ॥

अथवा स्वतो गुणविशेषस्यापि धात्वर्थस्य प्रत्ययाभिधेयक्रियोपरक्तत्वेन क्रियात्वमस्तीति क्रियात्वोक्तिः सङ्गच्छते । यथा वक्ष्यत्याचार्यः 'परोपाधि' इत्यादि । नचैवं मन्तव्यं देवदत्तादौ कर्तरि समवेतो यो[1] व्यापारः, स पचतीत्यत्र प्रत्ययार्थः ; यत्तु(स्तु) काष्ठादिकार-कान्तरसमवेतो ज्वलनादिव्यापारः, स धातोरर्थ इति । नानाजातीनां ज्वलनादिव्यापाराणा-मेकेन पचिधातुना अभिधानानुपपत्तेः । विक्लित्त्याद्येकफलावच्छेदेन तेषामेकत्वसम्भवात् एकेन धातुना अभिधानमुपपद्यत इति चेत्—एवं तर्हि विक्लित्त्यादेः फलस्यैव पचिवाच्यत्व-मिष्यताम् , लाघवात् । कथन्तर्हि पचतीत्यत्र ज्वलनादीनां प्रतीतिः ? प्रत्ययाभिधेयकर्तृ-व्यापारान्तर्भावात् । कर्तृव्यापारे हि फलपर्यन्ते पूर्वापरीभूतात्मनि कारकान्तरव्यापाराः अन्तर्भावं प्रतिपद्यमानाः प्रत्ययनिबन्धनप्रत्ययतां नातिवर्तन्ते इति । अतः सुष्ठूक्तं—'विक्लित्तिमात्रं सङ्कल्पविशेषमात्रं चाचक्षाते पचियजी' इति ॥

१. 'यो' नास्ति—छ मातृकायाम् ·

[1]किञ्च—

तदेव तस्य करणं [2]न वै कर्म च कल्पते।
भावनां सङ्गिरन्तेऽतो धात्वर्थव्यतिरेकिणीम्॥ ३९॥

'यजेताश्वमेधेन', '[3]ईजे बहुभिर्यज्ञैः', 'स्वं यज्ञं [4]यजति' इत्येकत्वे क्रियाकारकभावानुपपत्तिः[5]। सामान्यविशेषभेदोऽपि न

इतोऽपि धात्वर्थातिरिक्ता भावना अभ्युपगन्तव्या इत्याह—किञ्च—

तदेव तस्य करणं न वै कर्म च कल्पते।
भावनां सङ्गिरन्तेऽतो धात्वर्थव्यतिरेकिणीम्॥ (इति)॥

अयमर्थः---एकस्यैव क्रियात्वं कारकत्वं च नोपपद्यते, क्रियाकारकयोर्भेदप्रसिद्धेः[6]। दृश्यते च क्रियाकारकभावो धात्वर्थप्रत्ययार्थयोः 'यजेताश्वमेधेन' इत्यादौ। अतो धात्वर्थात्कारकाद्व्यतिरिक्तां प्रत्ययाभिधेयां क्रियां प्रतिजानते। 'प्राज्ञाः' इति शेषः। अस्यार्थस्य स्पष्टीकरणायाह—'यजेताश्वमेधेन' 'ईजे[7] बहुभिर्यज्ञैः' 'स्वं यज्ञं यजति' इत्येकत्वे क्रियाकारकभावानुपपत्तिरिति॥ 'यजेताश्वमेधेन' इत्यत्र तावदश्वमेधनामधेयस्य धात्वर्थस्य करणत्वं प्रतीयते, 'अश्वमेधेन' इति तृतीयाश्रवणात्। ततस्तत्र तद्व्यतिरिक्ता क्रिया अभ्युपेया, यत्रास्य करणत्वम्। 'ईजे च बहुभिर्यज्ञैः' इत्यत्रापि 'ईजे' इत्याख्यातार्थं प्रति यज्ञानां करणत्वं गम्यते। तत्र यदि 'ईजे' इति पदे यज्ञव्यतिरिक्ता क्रिया प्रत्ययाभिधेया नाभ्युपगम्येत, यज्ञानां करणत्वं श्रूयमाणं बाध्येत। [8]तथा 'स्वं यज्ञं यजति' इति यज्ञ-

---

१. 'किञ्च-तदेव' इत्यारभ्य 'व्यतिरेकिणीम्' इत्यन्तो ग्रन्थः नास्ति—घ मातृकायाम्।
२. नचैकमव—**ग, घ, ङ**.
३. इष्टवान् बहुभिः—**ग, घ, ङ**.
४. यजतीत्येकस्यैव—**क, ख**; यजतीति चैकत्वे—**ग, घ, ङ**.
५. भावानुपपत्तेः—**क**.
६. भेदः प्रसिद्धः—**छ**.
७. ईजे च—**छ**.
८. तदा—**च**.

क्रियाकारकसम्बन्धमुपपादयितुं[1] क्षमः, सामान्यस्यासाध्यत्वेना-क्रियात्वात्[2], विशेषणविशेष्यसम्बन्धे तु कारकविभक्तिविरोधः[3]। नाप्येकदेशयोः क्रियाकारकभावः, उभयत्रापि[4] समुदायस्य शब्दो-

---

मिति द्वितीयानिर्देशाद्यज्ञस्य कर्मत्वं कारकत्वं (कर्मकारकत्वं) गम्यते यजत्यर्थं प्रति । अतो यजतीत्यस्मिन्पदे प्रकृत्यर्थात्कर्मभूताद्यागाद्भिन्ना क्रिया प्रत्ययाभिधेया इत्यभिप्रायः ।

नच सामान्य(विशेष)भावनिबन्धनेन भेदेन क्रियाकारकभावः उपपादयितुं शक्यत इत्याह—सामान्यविशेषभेदोऽपि न क्रियाकारकसम्बन्धमुपपादयितुं क्षमं(मः), [5]सामान्यस्यासाध्यत्वेन (अ)क्रियात्वादिति ॥ योऽपि मन्यते धात्वर्थसामान्यं प्रत्ययार्थः । तद्विशेषः प्रकृत्यर्थः । अतस्तयोः कियानपि भेदो विद्यत इति, तस्यापि नैवंविधो भेदः क्रियाकारक-सम्बन्धमुपपादयितुं क्षमः, सामान्यस्य क्रियात्वाभावात् , तदभावश्च तस्य साध्यत्वाभावात् , साध्यत्वाभावश्च सामान्यस्य व्यक्तीनां साध्यत्वाभावात् । व्यक्तीनां साध्यत्वेन क्रियात्वाभ्युप-गमे कारकत्वानुपपत्तिप्रसङ्गात् । अतो न सामान्यविशेषभेदेनायं क्रियाकारकभावस्सम्भवति ॥

ननु मा भूत्क्रियाकारकसम्बन्धः सामान्यविशेषयोः, विशेषणविशेष्यसम्बन्धस्तु सम्भवति इत्याशङ्कयाह—विशेषणविशेष्यसम्बन्धे तु कारकविभक्तिविरोध इति ॥ अश्व-मेधेन, बहुभिर्यज्ञैः, स्वं यज्ञमिति करणकारकविभक्तेः कर्मकारकविभक्तेश्च विशेषणविशेष्य-सम्बन्धाभ्युपगमे विरोधः स्यात् । अथ मतं—क्रियासमुदायो यागः, तस्य [6]कश्चिदेकदेशः कारकमश्वमेधादिशब्दैरभिधीयते । अतः क्रियाकारको(कभावो)पपत्तिरिति । एतदप्ययुक्त-मित्याह—नाप्येकदेशयोः क्रियाकारकभावः, उभयत्रापि समुदायस्य शब्दोपादानत्वादिति ॥

---

१. उपकल्पयितुं—**ख, ग, घ, ङ.**

२. अक्रियात्मकत्वात्—**ग, घ, ङ.**

३. विभक्तेर्विरोधात्—**ग, घ, ङ.**

४. 'अपि' नास्ति—**ग, घ, ङ** मातृकासु.

५. 'सामान्यस्यासाध्यत्वेन' इत्यारभ्य 'क्षमः' इत्यन्तो ग्रन्थः नास्ति—**छ** मातृकायाम् ।

६. कश्चिद्देशः—**छ.**

पादानत्वात्[१]। नापि [२]धातूपादानायामप्यन्तर्भूतसामान्यकर्मकरणिकायां[३] विशेषकर्मकरणसम्बन्धः—यथा 'मुण्डयति माणवकम्', 'मालिन्योपश्लोकयति[४]' इति; 'स्वं यज्ञम्', 'बहुभिर्यज्ञैः[५]' इत्यपि

उभयत्र धातावुपपदे[६] च समुदायस्यैव शब्दाभिधेयत्वात्, अन्यथा धात्वर्थोपपदयोः नामनामिभावासम्भवात्, एकदेशयोः क्रियाकारकभावः अनुपपन्न इत्यर्थः।

यदपि मतं 'यजेताश्वमेधेन' इत्यत्र यजिनैव यागसामान्यकरणिका भावना अभिधीयते। करणविशेषस्त्वश्वमेधशब्देन समर्प्यते—यथा 'मालिन्योपश्लोकयति' इति। अत्रोपश्लोकयतिना णिजन्तेन श्लोकसामान्यकरणिकोपस्तुतिरभिधीयते। तत्र ह्युपश्लोकयतीति—श्लोकैरुपस्तौतीत्यर्थः प्रतीयते। तत्र मालिनीशब्देन [७]श्लोकविशेषवाचिना करणविशेषस्समर्प्यते। [८]तद्वत् 'स्वं यज्ञं यजति' इत्यत्रापि यजिरन्तर्भूतयागसामान्यकर्मिकां भावनां उपादत्ते। यज्ञमित्यनेन च कर्मविशेषः समर्प्यते। यथा 'मुण्डयति माणवकम्' इत्यत्र मुण्डयतिना णिजन्तेन मुण्डसामान्यकर्मिका भावना प्रतीयते—मुण्डं करोतीति, माणवकशब्देन च मुण्डविशेषः प्रत्याय्यते। एवमत्रापि। अतो न प्रत्ययाभिधेया भावनेति। एतन्निराकरोति—नापि धातूपादानायामप्यन्तर्भूतसामान्यकर्मकरणिकायां विशेषकर्मकरणसम्बन्धः—यथा 'मुण्डयति माणवकम्', 'मालिन्योपश्लोकयति' इति॥ अत्रान्तर्भावो [९]गुणभावोऽभिप्रेतः सामान्यस्य कर्मकरणरूपस्य भावनां प्रति। निराकार्यं वस्तूपदर्श्य निराकरणप्रतिज्ञा कृता। इदानीन्तत्र हेतुमाह—स्वं यज्ञम्, बहुभिर्यज्ञैरित्यपि धातुना भावनोपादानात् विशेषभावनाभ्यु-

---

१. समुदायस्याधिकत्वेनोपादानात् — ख; समुदायस्य शब्दोपात्तत्वात्—ग, घ.
२. धातूपात्तायां भावनायामन्तर्भूत—ग, घ.
३. करणिकायां यथा-मुण्डयति माणवकम्—ख.
४. उपश्लोकयति मालिन्येति—ख, ग, घ, ङ.
५. यज्ञैर्यजन्तीत्यपि—क, ख; यज्ञैरित्यत्रापि—ग, घ.
६. उपदेशे—च.
७. श्लोकसामान्य—छ.
८. यद्वत्—छ.
९. गुणाभावः—छ.

धातुना भावनोपादानात् [1] विशेषभावनाभ्युपगमात् विशेषणविशेष्यसम्बन्धप्रसङ्गात् । अनुपादाने [2] च सिद्धव्यभिचारोऽसौ न [3] तिङन्तेऽपि तामुपादातुमर्हति । एतेन '[4] ओदनपाकं पचति' इत्या-

---

पगमाद्विशेषणविशेष्यसम्बन्धप्रसङ्गादिति ॥ अयमर्थः—'स्वं यज्ञम्', 'बहुभिर्यज्ञैः' इत्यत्र यज्ञशब्दान्तर्गतेनापि यजिना धातुना यागसामान्यान्विताया भावनाया भवत्पक्ष उपादानात् 'स्वम्' 'बहुभिः' इत्यादिभिरभिसम्बन्धेन तस्या एव भावनाविशेषरूपाभ्युपगमात् 'यजति' 'ईजे' इत्याख्यातपदप्रकृत्युपात्ताया 'यज्ञैः यज्ञ'मिति यज्ञशब्दोपात्तायाश्च भावनाया विशेष्यविशेषणभावप्रसङ्गः । आख्यातप्रकृत्युपात्ताया यागसामान्यान्विततया[5] सामान्यरूपत्वात् यज्ञशब्दोपात्तायाश्च 'स्वं बहुभिः' इत्यादिपदान्तरैः यागविशेषलाभात् विशेषरूपत्वात् सामान्यविशेषयोश्च [6] विशेष्यविशेषणभावस्य सम्भवात् असम्भवाच्च क्रियाकारकभावस्य क्रियाकारकसम्बन्धप्रतीतिरुपरुध्येतेत्यभिप्रायः ॥

अथैतद्दोषपरिजिहीर्षया यज्ञशब्दे धातुः भावनां नोपाददीत, तर्हि तत्र प्रसिद्धभावनाभिधानव्यभिचारः 'यजति' 'ईजे' इति तिङन्तेऽपि तां [7] नोपादातुमर्हति इत्येतदाह—अनुपादाने च सिद्धव्यभिचारोऽसौ न तिङन्तेऽपि तामुपादातुमर्हतीति ॥ वैदिकोदाहरणप्रदर्शितं न्यायं लौकिकोदाहरणेऽतिदिशति—एतेन 'ओदनपाकं पचति' इत्यादयो व्याख्याता इति ॥ योऽयं 'स्वं यज्ञं यजति' इत्यादावुक्तो न्यायः प्रकृत्यर्थातिरिक्तप्रत्ययाभिधेयभूतभावनावगमे, एतेनोपा(नौद)नपाकादयो व्याख्याता वेदितव्याः । तत्रापि हि पचतिशब्दार्थस्य पाकशब्दार्थस्य चैकत्वे क्रियाकारकभावानुपपत्तिः । सामान्यविशेषभेदाभ्युप

---

१. विशेषभावनाभ्युपगमात्—नास्ति—क, ख मातृकयोः ।
२. वा—ख, ग, घ, ङ.
३. तिङन्तेष्वपि—क.
४. ओदनः पाकं—क.
५. सामान्यान्वितायाः—छ.
६. विशेषणविशेष्य—छ.
७. नोपपादयितुं—च.

दयो[1] [2]व्याख्याताः। [3]तस्माद्यत्रैष कारकभावो [4]नामपदोपादानधात्वर्थस्य [5]विभक्तिभिर्व्यज्यते, स तदतिरेकी तिङन्तेषु प्रत्ययो-

---

गमेऽपि क्रियाकारकसम्बन्धानुपपत्तिः। विशेषणविशेष्यसम्बन्धे तु कारकविभक्तिविरोधः। नापि क्रियासमुदायात्मकस्य पच्यर्थस्यैकदेशः क्रिया एकदेशान्तरं कारकमिति सम्भवति, तिङन्ते घञन्ते चोभयत्रापि समुदायस्यैव धातूपादानत्वात्। नाप्यन्तर्भूतपाकसामान्यान्विताया भावनायास्तिङन्तपदे धातूपात्ताया ओदनपाकमित्यनेन पाकविशेषा(षेणा)न्वयोऽवगम्यते इति वाच्यम्। पाकशब्देऽपि धातुना पाकसामान्यान्विताया भावनाया अभिधानात्, तस्याश्चौदनादिपदान्तरसन्निधानादिलब्धविशेषायाः पचतीत्यत्र धात्वभिहितपाकसामान्यान्वितभावनया सह विशेषणविशेष्यसम्बन्धप्रसङ्गात्क्रियाकारकभावानुपपत्तिः(तेः)। एतद्दोषपरिहाराय पाकशब्दे धातुना भावनाया अनुपादाने सिद्धव्यभिचारोऽसौ धातुः तिङन्तेऽपि न भावनामभिधातुमर्हतीति॥ एवं श्लोकपूर्वार्धं व्याख्यायाधुनोत्तरार्धं पूर्वार्धोपपादितहेतुप्रतिपाद्यार्थनिगमनरूपं व्याचष्टे—तस्माद्यत्रैष कारकभावो [6]नामपदोपादानधात्वर्थस्य विभक्तिभिर्व्यज्यते, स तदतिरेकी तिङन्तेषु प्रत्ययोपादानः करोत्यर्थः प्रतिज्ञायते वृद्धैरिति॥ यस्मादेकत्वे क्रियाकारकभावानुपपत्तिः तस्माद्यत्राश्वमेधादिनामपदोपात्तस्य धात्वर्थस्य तृतीयादिविभक्तिभिः कारक भावो व्यज्यते, स तस्माद्धात्वर्थभावादतिरिक्तः करोत्यर्थः प्रत्ययाभिधेयः प्रतिज्ञायते वृद्धैर्मीमांसकैः॥

कथन्तर्हि 'इष्टवान्यज्ञैः' इत्यादौ यज्ञादीनां करणादिभावः? नहि तत्र भावनावचनत्वाभिमत आख्यातप्रत्ययोऽस्ति; इष्टवानित्यादेः कृदन्तत्वात्, तस्य च कर्तृकारकवचनत्वात्, कर्तृकारकेण च करणादिकारकान्तराणामन्तरेण क्रियान्वयमन्वयायोगात्। अतः

---

१. पचतीत्यादयोऽपि—ग, घ, ङ.
२. व्याख्यातम्—क.
३. यस्मात्—ङ.
४. नामपदोपादानस्य धात्वर्थस्य—क, ख; नामपदोपदोपात्तधात्वर्थस्य—ग, घ; नामपदोपात्तस्य धात्वर्थस्य—ङ.
५. विभक्तिभिरभि—क, ख.
६. पदोपादोत्तरस्य—च.

पादानः करोत्यर्थः प्रतिज्ञायते वृद्धैः । 'इष्टवान्यज्ञैः' इत्यपि[१] द्रव्य-[२]प्रधान[३]भावनाधिगमान्निष्ठादिषु [४]तथा प्रतीतेरविरोधः ॥

यत्तूक्तं भावनाविषयत्वप्रतीतेः करणत्वहानिः[५], तदनिरूपितकरण(त)त्त्वस्य[६]।

क्रियारूपभावनाप्रतिपादकशब्दाभावात् 'इष्टवान्यज्ञैः' इत्यन्वयानुपपत्तिप्रसङ्गात् (ङ्गः) इत्याशङ्क्याह—'इष्टवान्यज्ञैः' इत्यपि द्रव्यप्रधानभावनाधिगमान्निष्ठादिषु तथा प्रतीतेरविरोध इति ॥ अयमर्थः—यद्यपि तत्राख्याताभावाद्भावनाया अभिधानं नास्ति, तथापि द्रव्यप्रधानादप्युपसर्जनीभूता भावना अवगम्यते । कृदन्ताभिहितस्य कर्तृत्वस्य भावनासम्बन्धप्रभावितत्वात् तद(म)न्तरेणानुपपत्तेः । अतो नान्तरीयकतया द्रव्यप्रधानभावनाभ्युपगमात् यज्ञादीनां करणादिभावप्रतीतेर्न कश्चिद्विरोध इति ॥

एवं धात्वर्थातिरिक्तां भावनामाख्यातप्रत्ययाभिधेयां प्रतिपाद्येदानीं पूर्वपक्षवाद्यापादितमनिष्टप्रसङ्गं निराकरणायानुभाषते—यत्तूक्तं—भावनाविषयत्वप्रतीतेः[७] करणत्वहानिरिति ॥ अयमर्थः—तिङन्ते धात्वर्थस्य साध्यताप्रतीत्या 'कः पाकः पचति' इत्यत्र प्रदर्शितया अर्थभेदनिदर्शनेन च 'पाकं करोति पचति' इत्यत्रोक्तेन यः तिङभिधेयां भावनामिच्छति तस्य पक्षे धात्वर्थस्य भावनायां कर्मत्वप्रसङ्गात् करणत्वमिष्टं न सिध्यतीत्युक्तमिति ॥ एवमनुभाष्य परिहारमाह—तदनिरूपितकरणत्व(तत्त्व)स्येति ॥ अनिरूपितकरण(तत्त्व)त्वात्तवैतच्चोद्यं करणस्वरूपनिरूपणायां न सम्भवतीत्यर्थः । एतदेव स्पष्टीकर्तुं करणस्वरूपं निरूपयति—

---

१. इत्यत्रापि—**ग, घ.**

२. प्रधाने—**ख.**

३. भावनोपगमात्—**क, ख**; भावनाभ्युपगमात्—**ग, घ, ङ.**

४. 'तथा' नास्ति—**क, ख** मातृकयोः.

५. हानिरिति—**क, ख.**

६. अनिरूपिताकरणत्वात्—**ङ**; अनिरूपितकरणत्वात्—**क, ख.**

७. विषयत्वं च प्रतीतेः—**च.**

तथा हि—

करणं खलु सर्वत्र कर्तृव्यापारगोचरः[१]।
तिरोदधाति कर्तारं प्रधानं तन्निबन्धनम् ॥ ३६ ॥

न खलु कर्तृव्यापारलक्षणभावनाप्त्या[२] धात्वर्थस्य कर्मत्वप्रसङ्गः [३]करणत्वबाधो वा, [४]परश्वादिषु तथा प्रसङ्गात्। [५]न छिदा-

तथाहि—

[६]करणं खलु सर्वत्र कर्तृव्यापारगोचरः ।
तिरोदधाति कर्तारं प्रधानं तन्निबन्धनम् ॥ (इति) ॥

अयमाशयः—यद्धि करणं परश्वादि तदेव सर्वत्र कर्तृव्यापारस्य साक्षाद्विषयः, न फलम्। फलन्तु करणव्यापारस्य साक्षाद्विषयः। ततश्च तन्निबन्धनं कर्तृव्यापारविषयभूतपरश्वादिकरणव्यापारनिबन्धनं प्रधानं फलं छिदा कर्तारं तिरोदधाति आरात्करोति। अथवा कर्तृव्यापारगोचरः करणं कर्तारं तिरोदधाति प्रधाननिष्पत्तेरारात्करोति, यस्मात्प्रधानं तन्निबन्धनं कर्तृव्यापारविषयभूतकरणव्यापारनिबन्धनमित्येवं ग्रन्थो योजयितव्यः ।

इदानीं श्लोकस्यार्थाविष्करणायाह—न खलु कर्तृव्यापारलक्षणभावनाप्त्या धात्वर्थस्य कर्मत्वप्रसङ्गः, करणत्वबाधो वा, परश्वादिषु तथा प्रसङ्गात् इति॥ अयमर्थः—न कर्तृव्यापार-

१. गोचरं—**क**.
२. लक्षणभावनाव्याप्त्या धात्वर्थस्य—**क, ख**; लक्षणायां भावनायां धात्वर्थस्य—**ग, घ**; लक्षणभावनायां धात्वर्थस्य—**ङ**.
३. अकरणत्वं वा—**क, ख, ग, घ, ङ**.
४. परश्वादावपि प्रसङ्गात्—**क, ख**; परश्वादावपि तथा प्रसङ्गात्—**ग, घ**; परश्वादावतथात्वप्रसङ्गात्—**ङ**.
५. तथाहि—अधिकं वर्तते—**ग, घ, ङ, छ**.
६. करणं खलु सर्वत्रेति—**च**.

दिषु[१] साक्षाद्व्याप्रियते कर्ता, [२]किन्तु परश्वादिकरणे[३]। [४]तद्व्यापारः तदुद्यमननिपातनादिलक्षणः[५] परशुगोचर एव। [६]अतः तस्याव्यवहितव्यापारतया क्रियासिद्धेः[७] साधकतमत्वम्। [८]तद्व्यापारायत्त-

---

लक्षणभावनाव्याप्तिमात्रेण धात्वर्थस्यानभिमतं कर्मत्वं प्रसज्यते, अभिमतं वा करणत्वं बाध्यते, परश्वादावपि तथा प्रसङ्गात् कर्मकरणत्वबाधयोः प्रसङ्गादिति। एतदेव प्रपञ्चयति—न छिदादिषु साक्षाद्व्याप्रियते कर्ता, [९]किन्तु परश्वादिकरणं(णे)। तद्व्यापारः तदुद्यमननिपातनादिलक्षणं(णः) परशुगोचर एव। अतः तस्याव्यवहितव्यापारतया क्रियासिद्धेः साधकतमत्वम्। तद्व्यापारायत्तप्रवृत्तितया च करणस्य कर्तुः स्वातन्त्र्यमारादुपकारिणोऽपि। अन्यथा करणतैव [१०]न स्यादिति॥ अयमर्थः—न छिदादिषु फलेषु कर्ता साक्षात् करणव्यापारनिरपेक्षो व्याप्रियते। किन्तर्हि? यत्परश्वादि करणम्, तदेव साक्षाच्छिदादिषु व्याप्रियते। क्व तर्हि साक्षात्कर्तृव्यापार इत्यपेक्षायामुक्तम्—तद्व्यापारः तदुद्यमननिपातनादिलक्षणः परशुगोचर एवेति। तस्य [११]कर्तुर्व्यापारः तद्व्यापारः, तस्य परश्वादेरुद्यमननिपातनादिरूपः परश्वादिकरणगोचर एव, न छिदादिफलविषयः। कथन्तर्हि कर्तृव्यापारविषयस्य परश्वादेः करणतेत्याशङ्क्योक्तम्—तस्याव्यवहितव्यापारतया क्रियासिद्धेः साधकतमत्वमिति॥ तस्य परश्वादेरव्यवहितव्यापारतया क्रियाफलनिष्पत्तेः स्वव्यापारस्य (च) व्यवधानाभावात् साधकतमत्वं क्रियाफलनिष्पत्तौ प्रत्यासन्नोपकारकत्वादुपपद्यते। कथन्तर्हि परश्वादिकरणव्यापारव्यवहितस्य देवदत्तादेः कर्तृत्व-

---

१. छिदादिषु न—**ग, घ, ङ.**
२. अपि तु—**ग**; घ, ङ.
३. करणम्—**क, ख.**
४. तद्व्यापारास्तूद्यमन—**क, ख, ग, घ, ङ.**
५. लक्षणं—**क.**
६. 'अतः' नास्ति—**ख** मातृकायाम्। अत एव करणस्य—**ग, घ**; अत एव तस्याव्यवहित—**ङ.**
७. सिद्धौ—**क, ख.**
८. तद्व्यापारापेक्ष—**ग, घ.**
९. अपि तु—**छ.**
१०. 'न' नास्ति—**छ** मातृकायाम्।
११. कर्तृव्यापारः—**छ.**

प्रवृत्तितया च करणस्य [1]कर्तुः स्वातन्त्र्यमारादुपकारिणोऽपि; अन्यथा [2]करणतैव न स्यात्।

अपि च—

साधनानामभावस्स्यात्कर्तृकर्मातिरेकिणाम्।
साधनानां नियोगो हि कर्तृव्यापार इष्यते॥ ३७॥

मित्याशङ्क्योक्तम्—तद्व्यापारायत्तप्रवृत्तितया च करणस्य कर्तुः स्वातन्त्र्यमारादुपकारिणोऽपीति॥ तस्य कर्तुः व्यापार उद्यमननिपातनादिलक्षणो यः, तदायत्ता प्रवृत्तिः करणस्य यतः, अतः कर्तुर्देवदत्तादेः स्वातन्त्र्यमारादुपकारिणोऽप्युपपद्यते। स्वातन्त्र्यञ्च कर्तृत्वम्, न सन्निकृष्टोपकारकत्वम्। यदि पुनः कर्तृव्यापारविषयतामात्रेण सन्निकृष्टोपकारिणोऽपि करणता नेष्येत, तदा सर्वत्र करणतैव न स्यादिति। एतदुक्तम्—अन्यथा करणतैव न स्यादिति॥ यदा तु अन्यथा करणतैव स्यादिति नञ्रहितः पाठः, तदा अस्यायमर्थः—यदि करणव्यापारव्यवधानेन विना कर्तुः साक्षादेव फले व्यावृत्ति(प्रवृत्ति)रिष्येत, तदा कर्तुरेव(रपि) करणतैव स्यात्, फलं प्रति प्रत्यासन्नतरत्वात्, न कर्तृत्वमिति।

किञ्च कर्तृव्यापारव्याप्तिमात्रेण कर्मापत्तौ [3]करणत्वबाधे वा अभ्युपगम्यमानेऽनिष्टप्रसङ्गं चोदयति—अपि च—

साधनानामभावः स्यात्कर्तृकर्मातिरेकिणाम्।
साधनानां नियोगो हि कर्तृव्यापार इष्यते॥ (इति)॥

---

१. कर्तृस्वातन्त्र्यं-**क**; स्वातन्त्र्यव्यापारादुप-**ङ**.
२. करणत्वतैव न स्यात्—**क**; करणमेव स्यात्—**ग, घ, ङ**.
३. कारणत्व—**च**.

प्रलीनेदानीं कर्तृकर्मातिरिक्तसाधनान्तरसङ्कथा[१], [२]साधननियोगः कर्तृव्यापार इति [३]तन्नियोगविषयतापत्त्या [४]सर्वत्र कर्मत्वापातात्। [५]कस्तर्हि कर्मेतरविभागः[६]? कथञ्च करणपरिक्षयिणि[७]

यदि कर्तृव्यापारविषयतामात्रेण करणत्वबाधः कर्मतापातश्चाभ्युपगम्यते, तदा कर्तृकर्मव्यतिरिक्तानामधिकरणादीनां कारकाणामभाव एव स्यात्। कृथम्? साधननियोगो हि कर्तृव्यापारः। स च सर्वसाधनविषय इति सर्वेषां कर्मत्वप्रसङ्गादिति।

अस्य श्लोकस्यार्थाविष्करणायाह—प्रलीनेदानीं कर्तृकर्मातिरिक्तसाधनान्तरसङ्कथा, साधननियोगः कर्तृव्यापार इति तन्नियोगविषयतापत्त्या सर्वत्र कर्मा(र्मत्वा)पातात् इति॥ नात्र तिरोहितमिव किञ्चिदस्ति॥ यथा कर्तृव्यापारविषयत्वाविशेषेऽपि सर्वेषां [८]कारकाणां नैकान्ततः कर्मत्वमेव, किन्तु कारकान्तरभावोऽपीष्यते, तथा करणस्यापि कर्तृव्यापारविषयस्यापि न कर्मत्वप्रसङ्ग इत्युक्ते चोदयति—कस्तर्हि कर्मेतरविभाग इति॥ कर्तृव्यापारविषयत्वाविशेषे सति सर्वेषां कारकाणां, कर्तृ(र्म)कारकस्येतरेषां च कारकाणां कथं विभागः सम्भवति?। नहि तत्र विभागहेतुः कश्चिदुपलभ्यते करणवत्। यथाहि करणस्य कर्तृव्यापारविषयस्य कर्मकारकात् [९]विभागे हेतुर्नास्ति इति कर्मत्वं प्रसक्तम्, तथा कारकान्तरेष्वपि कर्तृव्यापारविषयभूतेषु तत्प्रसङ्गः समान एव। [१०]कथमसिद्धेनासिद्धं साध्यते इत्यभिप्रायः कर्तृव्यापारस्य करणविषयत्वेऽन्यमपि [११]दोषमापादयति—कथञ्च करणपरिक्षयिणि कर्तृव्यापारे

---

१. साधनान्तरसत्कथा—**क** ; साधनान्तरकथा—**ग**, **घ**.

२. साधनान्तरनियोगः—**ग**, **घ**, **ङ**.

३. इति नियोगविषयताप्रतीत्या—**क**, **ख** ; इति नियोगविषयतातिपत्त्या—**ग**, **घ** ; इनि नियोगविषयताप्रति(पत्त्या)—**ङ**.

४. सर्वकर्म—**ङ**.

५. कथं तर्हि—**ग**, **घ**, **ङ**.

६. संविभोगः—**ग**, **घ**, **ङ**.

७. परिक्षीणे—**ग**, **घ**, **ङ**.

८. कारकाणां तेनात्रान्ततः—**च**.

९. विभागो—**छ**.

१०. कथं सिद्धेना—**छ**.

११. दोषप्रसङ्गम्—**छ**.

Annamalai University Philosophy Series—4

SIDDHITRAYA

BY

YĀMUNĀCĀRYA

Edited with English Translation and Notes

BY

R. RAMANUJACHARI, M.A.,
Professor of Philosophy, Annamalai University.

AND

PANDIT K. SRINIVASACHARYA, SIROMANI,
Sanskrit Department, Annamalai University.

|| श्रीः ||

|| श्रीमते यामुनाय नमः ||

|| संवित्सिद्धिः ||

एकमेवाद्वितीयं तद्ब्रह्मेत्युपनिषद्वचः ।
ब्रह्मणोऽन्यस्य सद्भावं ननु तत्प्रतिषेधति ॥
अत्र ब्रूमोऽद्वितीयोक्तौ समासः को विवक्षितः ।
किं खित्तत्पुरुषः किं वा बहुव्रीहिरथोच्यताम् ॥
पूर्वस्मिन्नुत्तरस्तावत्प्राधान्येन विवक्ष्यते ।
पदार्थस्तत्र तद्ब्रह्म ततोऽन्यत्सदृशं तु वा ॥
तद्विरुद्धमथो वा स्यात्त्रिष्वप्यन्यं न बाधते ।
अन्यत्वे सदृशत्वे वा द्वितीयं सिद्ध्यति ध्रुवम् ॥
विरुद्धत्वे द्वितीयेन तृतीयं प्रथमं तु वा ।
ब्रह्म प्राप्नोति यस्मात्तद् द्वितीयेन विरुद्ध्यते ॥

It is contended that the upaniṣadic text "Brahman (exists) one only, without a second" denies the existence of everything other than Brahman. Against this contention we argue as follows:—In what light is the compound word *advitīya* to be understood ? Is it a *tatpuruṣa* or a *bahuvrīhi* compound ? If it is the former, the significance of the latter part of the compound word must be considered as primary. Does the latter part declare that Brahman is 'different from' or 'similar to' or 'opposed to' *dvitīya* (the second)? In none of these alternatives does the text deny the existence of something other than Brahman. A second entity is clearly established if the word *advitīya* signifies 'different from' or 'similar to.' If it means 'opposed to the second', then Brahman must be either a first or a third entity ; for what stands opposed to the second is 'the first' or 'the third'. Therefore, hosts of objects, three and more,

अतस्सप्रथमास्सर्वे तृतीयाद्यर्थराशयः ।
द्वितीयेन तथा स्पृष्टास्स्वस्थास्तिष्ठन्त्यबाधिताः ।
ननु नञ् ब्रह्मणोऽन्यस्य सर्वस्यैव निषेधकम् ।
द्वितीयग्रहणं यस्मात्सर्वस्यैवोपलक्षणम् ॥
नैवं निषेधो न ह्यस्माद् द्वितीयस्यावगम्यते ।
ततोऽन्यत्तद्विरुद्धं वा सदृशं वात्र वक्ति सः ॥
द्वितीयं यस्य नैवास्ति तद्ब्रह्मेति विवक्षिते ।
सत्यादिलक्षणोक्तीनामपलक्षणता भवेत् ॥
अद्वितीये द्वितीयार्थनास्तितामात्रगोचरे ।
स्वनिष्ठत्वान्नञर्थस्य न स्याद्ब्रह्मपदान्वयः ॥
द्वितीयशून्यता तत्र ब्रह्मणो न विशेषणम् ।
विशेषणे वा तद्ब्रह्म तृतीयं प्रथमं तु वा ॥

along with the single entity untouched by duality (i.e., all objects with the exception of the second) do assuredly exist uncontradicted.

Since the term 'the second' (*dvitīya*) has the implicit designation (*upalakṣaṇa*) of also the third, the fourth and so forth, it may be urged that the negative particle denies everything other than Brahman (and not merely the second). But the reply is "Not so." The denial of a second entity should not be inferred from this expression; it only asserts that Brahman is something 'different from' or 'opposed to' or 'similar to the second.'[1]

If it is said that Brahman may be described as that which has no trace of duality, then words such as *satya* which define Brahman would turn out to be erroneous definitions (for they imply substance-attribute relation). If the expression *advitīya* were to dencte merely the absence of a second, Brahman would be self-existent, and, as such, the negative particle could not be associated with the term Brahman.

'Being without a second' cannot be a qualification of Brahman. Were it a qualification, it would (as already shown) follow that Brahman is either the first or the third entity.

1. Tadanya-tadviruddha-tadabhāveṣu nañ.

प्रसक्तं पूर्ववत्सर्वं बहुव्रीहौ समस्यति ।
ब्रह्मणः प्रथमा ये च तृतीयाद्या जगत्त्रये ॥
ब्रह्म प्रत्यद्वितीयत्वात्स्वस्थास्तिष्ठन्त्यबाधिताः ।
किं च तत्र बहुव्रीहौ समासे संश्रिते सति ॥
व(वृ)त्त्यर्थस्य नञर्थस्य न पदार्थान्तरान्वयः ।
सत्यार्थान्तरसम्बन्धे षष्ठी यस्येति युज्यते ॥
द्वितीयवस्तुनास्तित्वं न ब्रह्म न विशेषणम् ।
असत्त्वान्न ह्यसद्ब्रह्म भवेन्नापि विशेषणम् ॥
तस्मात्प्रपञ्चसद्भावो नाद्वैतश्रुतिबाधितः ।
स्वप्रमाणबलात्सिद्धश्श्रुत्या चाप्यनुमोदितः ॥

Even if the word is taken as a *bahuvrīhi* compound, it would follow that all objects exist. All objects of the three worlds, which, in relation to Brahman, could be spoken of as the first, the third, fourth and so on, would exist safely and without any danger of ever being contradicted; for all that is denied is merely the possession of a second.

Moreover, if the word is taken as a *bahuvrīhi* compound, the significance of the negative particle found in the compound cannot be said to be associated with anything else; for it is only in the event of there being a true relation (of Brahman) with something else that the genetive case implied in the compound (*that for which* there is no second) would be appropriate. (It is only if the phrase 'not having a second' could be attributed to something, that *advitīya* could be taken as a *bahuvrīhi* compound).

The phrase 'The absence of a second' does not mean Brahman itself nor an attribute thereof. For it is essentially negative, while Brahman is really not negative. Nor could it be an attribute of Brahman; (for according to the opponent, Brahman is devoid of qualities). Thus the existence of the world is not contradicted by scriptural texts speaking of reality as non-dual. The existence of the world is established by the sources of knowledge (*pramāṇas*) relevant thereto. Their verdict is further confirmed by scriptural testimony.

तेनाद्वितीयं ब्रह्मेति श्रुतेरर्थोऽयमुच्यते ।
द्वितीयगणनायोग्यो नासीदस्ति भविष्यति ॥
समो वाभ्यधिको वास्य योऽद्वितीयस्तु गण्यते ।
यतोऽस्य विभवव्यूहकलामात्रमिदं जगत् ॥
द्वितीयवागास्पदतां प्रतिपद्येत तत्कथम् ।
यथा चोळनृपस्सम्राडद्वितीयोऽद्य भूतले ॥
इति तत्तुल्यनृपतिनिवारणपरं वचः ।
न तु तद्भृत्यतत्पुत्रकळत्रादिनिषेधकम् ॥
तथा सुरासुरनरब्रह्मब्रह्माण्डकोटयः ।
क्लेशकर्मविपाकाद्यैरस्पृष्टस्याखिलेशितुः ॥
ज्ञानादिषाड्गुण्यनिधेरचिन्त्यविभवस्य ताः ।
विष्णोर्विभूतिमहिमसमुद्रद्रप्सविप्रुषः ॥
कः खल्वङ्गुलिभङ्गेन समुद्रान्सप्तसङ्ख्यया ।
गणयन्गणयेदूर्मिफेनबुद्बुदविप्रुषः ॥

The real significance of the text—"Reality exists one only and without a second (*advitīya*)"—may now be explained. The person who is considered *advitīya* is one who neither has, nor had, nor will have an equal or a superior capable of being counted as a second. How could the world be referred to as a second when it is but a small fraction of the entire collection of entities which constitute His possessions and which are under His sway (*vibhava*)? The statement "The paramount ruler of the Cola country now reigning is without a second in this world" —is intended to deny the existence of a ruler equal to him. It does not deny the existence of his servants, sons, consort and so on. Similarly, the whole host of *devas*, *asuras* and men, the four-faced Brahmā and the cosmic egg form but a small part of a drop from the ocean of the greatness (*mahimā*) of the possessions (*vibhūti*) of the Lord Viṣṇu who is the Lord of all, who is touched neither by sorrows (*klēśas*) nor by merits, demerits (*karma*) or (*vipāka*)[2] and so forth, and who is the seat of the sixfold qualities of knowledge (*jñāna*) and the like, and whose greatness cannot even be conceived by the mind. Which person, who counts with his fingers the oceans as seven, is capable of counting the waves, foam, bubbles and drops of water found therein?

2. Yoga-Sūtra, I, 24.

यथैक एव सविता न द्वितीयो नभस्स्थले ।
इत्युक्त्या न हि सावित्रा निषिध्यन्तेऽत्र रश्मयः ॥
यथा प्रधानसङ्ख्येयसङ्ख्यायां नैव गण्यते ।
सङ्ख्या पृथक्सती तत्र सङ्ख्येयान्यपदार्थवत् ॥

तथा,

पादोऽस्य विश्वा भूतानि त्रिपादस्यामृतं दिवि ।
इति ब्रुवन् जगत्सर्वमित्थंभावे न्यवेशयत् ॥

तथा,

एतावानस्य महिमा ततो ज्यायस्तरो हि सः ।
यत्रान्यन्न विजानाति स भूमोदरमन्तरम् ॥
कुरुतेऽस्य भयं व्यक्तमित्यादिश्रुतयः पराः ।
मेरोरिवाणुर्यस्येदं ब्रह्माण्डमखिलं जगत् ॥

Just as the presence of the rays of the sun is not contradicted by the statement—"There is but a single sun in the sky, and not two"—and just as when objects are counted the number (*sankhyā*), which is different therefrom is not counted, in the same way in which the objects are counted, even so when Brahman is declared to be without a second, the existence of His possessions is not denied. Texts such as—"All beings constitute but a quarter of Him, three-fourths remaining immortal in heaven"[3]—declare that the entire cosmos is but a mode of Brahman.

Śruti and smṛti texts, such as the following, purport to show that the world is a mode (*prakāra*) of Brahman. "His possessions are so immense. He is greater than these".[4] "That wherein he does not cognise anything other than Brahman is the highest of all (*Bhūmā*)";[5] "He is sure to be afflicted with fear who sees anything as different from Brahman (i.e., anything as not belonging to Brahman)";[6] "He before whom the cosmic egg and the entire universe pale into insignificance, just as an atom does before Mount Meru."

3. Puruṣa-Sūkta.
4. Puruṣa-Sūkta.
5. *Chānd. Up.*, VII.24.1.
6. *Tait. Up.*, II.7.

इत्यादिकास्समस्तस्य तदित्थंभावतत्पराः ।
वाचारम्भणमात्रन्तु जगत्स्थावरजङ्गमम् ॥
विकारजातं कूटस्थं मूलकारणमेव सत् ।
अनन्यत्कारणात्कार्यं पावकाद्विस्फुलिङ्गवत् ॥
मृत्तिकालोहबीजादिनानादृष्टान्तविस्तरैः ।
नाशकद्दग्धुमनलस्तृणं मज्जयितुं जलम् ॥
न वायुश्चलितुं शक्तस्तच्छक्त्याप्यायनादृते ।
एकप्रधानविज्ञानाद्विज्ञातमखिलं भवेत् ॥
इत्यादिवेदवचनतन्मूलाप्तागमैरपि ।
ब्रह्मात्मना(स्वा ?)त्मलाभोऽयं प्रपञ्चश्चिदचिन्मयः ॥
इति प्रमीयते ब्राह्मी विभूतिर्न निषिध्यते ।
तन्निषेधे समस्तस्य मिथ्यात्वाल्लोकवेदयोः ॥
व्यवहारास्तु लुप्येरंस्तथा स्याद्ब्रह्मधीरपि ।

The world consisting of objects which are liable to modifications and which are either moveable or immoveable exists for purposes of speech. The unchanging and ultimate cause of all these is *sat* alone. Just as the sparks are not different from fire wherein they take their rise, even so the effect is not different from its cause. That the effect is not different from its cause is shown by numerous illustrations, such as clay, iron, seed and so forth. Without being nourished by Brahman's power, fire would not be capable of burning even a blade of grass; water would not be capable of drowning; and the wind would be unable to move. "By an understanding of the one Supreme Being, all become known."

With the aid of scriptural texts such as the foregoing and smṛti texts based thereon, it is learnt that the world constituted of sentient and non-sentient objects derives its very being from the fact of its having Brahman for its soul. The possessions of Brahman are not contradicted by these passages. Should it be contended that their existence is denied, then it would follow that all activities, sacred and secular, nay even the knowledge of Brahman would cease to be; because everything (other than Brahman) would be illusory.

व्यावहारिकसत्यत्वान्मृषात्वेऽप्यविरुद्धता ॥
प्रत्यक्षादेरिति मतं प्रागेव समदूदुषम् ।
अतश्चोपनिषज्ज्ञा(ज्जा ?)तब्रह्माद्वैतधिया जगत् ॥
न बाध्यते विभूतित्वाद्ब्रह्मणश्चेत्यवस्थितम् ।
ननु सत्त्वे प्रपञ्चस्य नास्तीति प्रत्ययः कथम् ॥
असत्त्वे वा कथं तस्मिन्नस्तीति प्रत्ययो भवेत् ।
सदसत्त्वं तथैकस्य विरुद्धत्वादसंभवि ॥
सदसत्प्रत्ययप्राप्तविरुद्धद्वन्द्वसङ्गमे ।
तयोरन्यतरार्थस्य निश्चयाभावहेतुतः ॥
सदसत्त्वं प्रपञ्चस्य जैनास्तु प्रतिजानते ।

I have already refuted the contention that although objects are in fact illusory, perceptual experience and the like are not contradicted, in so far as objects are said to possess phenomenal reality (*vyāvahārika satyatva*). Thus, it follows that, since the world is the possession of Brahman, its existence is not contradicted by the knowledge afforded by the Upaniṣads, namely, that Brahman is without a second.

The objector might ask: If the world exists, how could negative judgments (such as "There is no jar") arise? We ask him in reply "If the world were non-existent, how could affirmative judgments (like "There is a jar") arise?

(Should it be said that since both negative and affirmative cognitions do arise, the world is at once *sat* and *asat*, it is replied that) *sat* and *asat* cannot characterise the self-same entity; for they are contradictory qualities.

When contradictory qualities are attributed to the self-same entity on the strength of contradictory cognitions of 'existence' and 'non-existence', there is no certainty as to which of them is true. For this reason, the Jains declare that existence and non-existence could be attributed to the world.

सत्त्वप्राप्तिं पुरस्कृत्य नास्तीति प्रत्ययोदयात् ॥
सदा सत्वं प्रपञ्चस्य सांख्यास्तु प्रतिपेदिरे ।
सदसत्प्रत्ययप्राप्तविरुद्धद्वन्द्वसङ्कटे ॥
विरोधपरिहारार्थं सत्वासत्वांशभञ्जतः ।
सदसद्भ्यामनिर्वाच्यं प्रपञ्चं केचिदूचिरे ॥
सत्त्वासत्त्वे विभागेन देशकालादिभेदतः ।
घटादेरिति मन्वाना व्यवस्थामपरे जगुः ॥
तदेवं वादिसंमर्दात्संशये समुपस्थिते ।
निर्णयः क्रियते तत्र मीमांसकमतेन तु ॥
घटस्वरूपे नास्तित्वमस्तित्वं यद्यबूबुधत् ।
स्यादेव युगपत्सत्त्वमसत्त्वं च घटादिषु ॥

Since the cognition of non-existence presupposes awareness of existence, the Sānkhyas maintain that the world is always characterised by existence.

In order to get over the contradiction presented by the mutually opposed qualities arising from the cognition of existence and non-existence, some thinkers, rejecting both the features of reality and unreality, assert that the world cannot be defined either as *sat* or as *asat* (*sadasadanirvacanīya*).

Finding that in regard to different times and places, both existence and non-existence could characterise jars and other objects, yet others believe that both existence and non-existence may characterise the world on the basis of certain well-defined spatial and temporal differences.

When doubt is engendered as a result of the keen controversy that rages between these rival theorists, a decision in regard to this matter is arrived at by us in accordance with the Mīmāmsaka theory.

If a person were to cognise the jar as being at once existent and non-existent, then only could the contradictory features of *satva* and *asatva* be attributed to the jar simultaneously. Since our cognitions

व्यवस्थितं निरस्तत्वाद्वादस्येह न संभवः ।
ननु देशादिसम्बन्धस्सत एवोपपद्यते ॥
न देशकालसम्बन्धादसतस्सत्त्वमिष्यते ।
सम्बन्धो द्व्याश्रयस्तस्मात्सतस्सत्त्वं सदा भवेत् ॥
असतः कारकैस्सत्त्वं जन्मनेत्यतिदुर्घटम् ।
आद्यन्तवान्प्रपञ्चोऽतस्सत्कक्ष्यान्तर्निवेक्ष्यते ॥

उक्तं च,

आदावन्ते च यन्नास्ति नास्ति मध्येऽपि तत्तथा ।
अतो निश्चितसद्भावस्सदा सन्नभ्युपेयताम् ।
असतस्सर्वदाऽसत्त्वं जन्ययोगात्खपुष्पवत् ॥
असत्वे न विशेषोऽस्ति प्रागत्यन्तासतोरिह ।

take the following form—"This exists here at this moment" or "It is not here at present"—as a consequence of differences of space, time and states, it has to be inferred that, on the basis of such distinctions of space, time and states, *satva* and *asatva* could be attributed simultaneously to the jar. Hence, it may be concluded that reality and unreality may both be attributed to the jar and the like on the basis of differences of space, time and so forth. This doctrine need not now be considered, as it has already been refuted.

Relation with space and time is intelligible only in the case of *sat* (i.e. The *asat* could not be in contact with space and time). How, then, could it be maintained that the unreal acquires reality with the aid of its relation with space and time? For relation (*sambandha*) is what is found in two relata. Thus the real (*sat*) always possesses the feature of reality. It is impossible for causal factors, however powerful, to create the quality of existence in what is essentially unreal. Hence the universe which has a beginning and end must be included in the category of reality. It has already been said that what does not exist at the beginning and in the end must also be non-existent in the middle. Therefore, from the certain fact of its existence now, let it be admitted that the world exists at all times.

Since unreality can never be created, it always belongs to the unreal, as in the case of the sky-flower. There is no distinction between what is absolutely non-existent and what does not exist at an antecedent time in so far as the aspect of non-existence is concerned, (i.e., differences of space, time and state could neither make the unreal real; nor could they make the real unreal).

.... ॥
श्वेतकेतुमुपादाय तत्त्वमित्यपि यच्छ्रुतम् ।
षष्ठप्रपाठके तस्य कुतो मुख्यार्थसम्भवः ॥
कार्पण्यशोकदुःखार्तश्चेतनस्त्वंपदोदितः ।
सर्वज्ञस्सत्यसङ्कल्पो निस्सीमसुखसागरः ॥
तत्पदार्थस्तयोरैक्यं तेजस्तिमिरवत्कथम् ।
त्वमर्थस्थे तटस्थे वा .... ॥
गुणे तत्त्वंपदश्रुत्योरैकार्थ्यं दूरवारितम् ।
अज्ञत्वसर्ववेदित्वदुःखित्वसुखितादिके ॥
विशेषणे वा चिद्धातो (द्व्यक्ते) रथवाप्युपलक्षणे ।
विरुद्धगुणसङ्क्रान्तेर्भेदस्स्यात् त्वन्तदर्थयोः ॥

* * * *
* * * *

(The opponent may ask.—) When in the sixth chapter of the *Chandogya Upaniṣad,* taking the instance of Śvetaketu, it is declared "Tat tvam asi," how could the words 'tat' and 'tvam' be assigned their primary meanings? The finite soul which is afflicted by helplessness, misery and, sorrows is referred to by the term tvam. The omniscient Being, who has a will that is ever-realised and who is the sea of illimitable bliss, is the significance of the word 'tat.' How could these two, which are opposed to each other even as light is opposed to darkness, be equated?

* * * *
* * * *

When the qualities found in the object referred to by the term 'tat' and those belonging to the entity denoted by the term 'tvam' (are wholly opposed to one another?) ......the view that the terms 'tat' and 'tvam' refer to an identical entity has been completely rejected. Whether characteristics such as ignorance and omniscience, suffering and enjoyment be taken as attributes (*viśeṣaṇas*) or as secondary marks (*upalakṣaṇas*) of the conscious entity, in any case the meanings of the terms *tat* and *tvam* must be different; since, otherwise, contradictory features would have to be attributed to an identical object.

Reviews

Economics, a Social Science—By Father Carty.

This book constitutes a collection of Sir William Meyer Lectures for 1939-40 delivered by Father Carty at the University of Madras. The main theme running through all the lectures is that Economics is, and should be, a practical science devoted to the betterment of humanity. The author deals with the social and normative character of Economics and deprecates the tendency to limit the science to its theoretical aspect only by cutting it away from the social background. These six lectures of Father Carty form a brilliant piece of criticism and constructive analysis, full of forceful arguments. The book is amply supported by the views of eminent authorities. They establish the point that Economics should not be a sterile and merely positive science but should be a useful instrument in furthering the economic progress and social happiness of mankind.

In his first lecture, the author traces briefly the history of the controversy regarding the purpose of Economics, whether it should be merely a theoretical, abstract, positive or "light bearing" subject or whether it should be an ethical, normative and "fruit-bearing" science. After examining the views of Adam Smith, Marshall, Pigou and others he comes to Prof. Robbins' view that Economics is nothing more than a science of choosing the best means. The author contends that Prof. Robbins' view is inadequate and unsatisfactory. Having indicated the "place which the concept of economics as a Social Science held in the evolution of the liberal economic thought," the learned author wants the aim of Economics to be clarified and defined as essentially a Social Science devoted to the growth of social happiness.

In his second lecture, "Social Foundation of Economics", the subject matter and the scope of the science is well analysed and explained. The author defines his concept of Social Economics as "the Science which establishes the laws of human behaviour concerning the material interests which form part of the common good of Society."

In his third lecture, "Positive and Normative Science," he demonstrates that the positive science is inadequate and shows how economics

is essentially evolutionary and normative. Referring to the excessive abstractions of some he says: "These economists, concerned only with what tends to be, and describing what the tendencies are or can possibly be, are led to use the various processes of reasoning, logical and mathematical, abstractions and assumptions, away from the facts of real life, in their endeavour to discover the general laws or tendencies of that science. The danger, on the other hand, is that too much abstract reasoning and aloofness from the concrete facts distort the vision and may turn much toil to little use."

In his fourth lecture, the author deals with the problem of reconciling economic principles with the demands of equity. The problems of inequality of income, wages, family allowances, etc., are viewed critically with an appeal to the economists "to face boldly in a constructive spirit the theoretical problems of Normative Economics conceived as organically related both to philosophical ethics and to political philosophy."

The fifth lecture deals with the realisation of economical welfare in the social background. The author goes into the larger problem of socio-economic organisation and the political framework of society. He examines the function of the State and the nature of private property, etc., which form the basis of modern economic organisation, and critically analyses Liberalism, Socialism and National Socialism. He finds them all unsatisfactory. To him Socialism is not in the interests of Society, and National Socialism is but the destruction of the rights of the individual. The real need is for "maintaining the proper balance between the rights of the individual and those of the State." Then only can the problem of Social economics be solved satisfactorily.

A solution of the problem of harmonising the State with the individual is attempted in the last lecture. The State as well as the citizen must co-operate for the furtherance of economic welfare. "These are the two pillars—individual and social—on which the structure must rest, in the further determination of the respective spheres of economic activity allotted to the two agencies." The author prefers the principle of corporate organisation for the reconstruction of social life and has given the main outlines of his scheme.

The name of Father Carty is very familiar and dear to students of Economics in South India. His lectures are interesting and inspiring since they are the outcome of decades of intensive study, discussions and a close examination of the trends of world politics and economics.

Having been a teacher for over thirty years the author has produced a very able defence of Economics as a light and guide to the affairs of men. This book bristles with critical discussions and illuminating quotations from eminent authors and thinkers from different parts of the world. Though this volume claims to be mainly suggestive and not exhaustive it succeeds in proving the necessity for an ethical basis for the economic science. There is no doubt that all will respect Father Carty's views and I am sure many would willingly adopt his opinions as their own. These lectures from the doyen of South Indian Economists are bound to be of great educational value both for students and for those who are interested in the social improvement and economic progress of their country.

B. V. NARAYANASWAMY.

A Note on Father Gnanaprakasar's Etymological and Comparative Lexicon of the Tamil Language.

It is a well-known fact that comparative Grammars and Comparative lexicons are the foundations upon which theories regarding the relationship of languages could be reared. In the matter of the Dravidian languages a comparative lexicon has been a long-felt need, a comparative grammar having been written as early as 1856 by that venerable scholar, Dr. Caldwell. Although a promise was made by Sir W. W. Hunter of the Bengal Civil Service in 1868 that he would publish a "Comparative Grammar of Non-Aryan Speech" which he had then in hand, that work apparently has not seen the light of day. Had the promise been realised, we should have had a new glorious vista opened to us, for he was of the firm belief that the study of the non-Aryan tongues of India was destined to open the door to the vast linguistic residue and to furnish the basis of a new science of language. A well-written etymological and comparative lexicon of the Tamil language is sure to throw a flood of light on many of the most important problems in comparative Philology not only because the comparative side cannot overlook the historical side of language but also because, generally speaking, Tamil is one of the most ancient and earliest cultivated languages of the world.

It is only in the 16th century that some Spanish priests helped in the compilation of grammars and dictionaries of American and Philippine languages. In 1786-87 there appeared a glossary of 285

words in 200 languages of Europe and Asia edited at the behest of Empress Catharine of Russia by the famous German traveller P. S. Pallas. The next decade saw the inclusion of 80 more languages, chiefly African and American. Between 1800 and 1805 a Spanish Jesuit, by name Hervas, edited a similar work. The next great work of this kind appeared in 1817, even although it had been planned before 1806. That four-volume treatise was published with the title *Mithridates* by Johann Severin Vater after the death of the German scholar Johann Christoph Adelung who had worked at it. In 1868, Sir W. W. Hunter published a comparative dictionary of the Languages of India and High Asia, and in 1874 Mr. C. Campbell of Calcutta published specimens of Languages of India including those of the Aboriginal tribes of Bengal, the Central Provinces and the Eastern frontier. As a result of the work in 1894 leading to a survey of the several Indo-European and foreign languages in the Indian Empire under the direction of Sir George Grierson, some lists of words were published before 1927.

These are the forerunners of modern comparative dictionaries. The work by Rev. Fr. S. Gnanaprakasar, though like them in certain respects, is yet unlike them for it seeks to establish the similarities and correspondences between the Dravidian and the Indo-European languages in the matter of roots or word-materials. This, however, is not the purpose of the book but only a necessary sequel. The book is well-planned. The intention is to issue it in two volumes of a thousand pages each. Two hundred pages have now appeared as the first two parts of Vol. I. The first part, besides containing a good preface by the author, has a "Philological Introduction" to the book written in eight sections. Of these, Sections IV and VI have been written in Tamil for the benefit of the Tamil reading public. The first section relates to 'the Laws of Dravidian Etymology' as sponsored by the author. The main pivot of the theory of the author on which the whole book seems to turn is that there were only four types of words to start with, they having been composed of one of the deitic bases *a* indicative of being near, *u* of being remote, *i* of being beneath and *e* of being above. "The distinction of predicative words came later. Consonants were harnessed to the deitics for emphasising and thus distinguishing, in different ways, the spatial relations of things with others and in themselves." There are 8 laws mentioned in this section, of which "the law (Law V) of Initial Intensive Consonants" has been

explained at greater length, since it is a controversial point, in a separate paper of the author under that title. To a question whether it was not a well-known fact that initial consonants are gradually dropped rather than newly prefixed to words, the author has replied, by stating (p. 15 of the paper) that in the process of building up a language consonants were used first as finals or formatives in order to differentiate one word from another but when all the resources furnished by the formatives,—first interchanging, then doubling and lastly repeating them—were exhausted, one *had* to turn to the new device of using the same difficult sounds as initials.

Section II is an introduction to the phonetic changes that generally take place in the Dravidian and the Indo-European. Section III points out under certain well-known sub-heads the semantic tendencies. According to the author the basic principle of Dravidian semantics is that the first meanings of all primary words had reference to concrete things (or to spatial relation in things). Section IV is only a Tamil version of the foregoing sections in English. Sections V to VIII contain bibliographies and Explanation of abbreviations etc.

Then begins the Lexicon proper. Words up to "aḍḍam" are comprised in Part I. Part II takes the matter upto "Alakamāṉ". The derivations are all given, bearing in mind the postulates of the author regarding the primary roots. Clear explanations are given in English and Tamil. Care has been taken to show how developments, according to the author, have taken place in the significance of the words; primary meanings have been placed first, secondary next and so on. It would have been better if dates, as far ascertainable as may be, were given on the model of the New English Dictionary, if only for the benefit of the non-Tamil public. But to expect "a busy missionary", who has undertaken this stupendous work single-handed, to ascertain the exact first occurrences of the words in Tamil literature is not totally reasonable. Anybody could do that later on. After the etymons or true origins, according to the views of the compiler, and after the explanations in English and Tamil are given, there follow as sub-joined notes, wherever necessary, comparisons instituted with the forms in other languages. Allied Sanskrit words are traced to their very roots in these notes. Compound words are generally given under the words constituting the first members of the compounds. All these are commendable features of the book. Occasionally the Roman numerals are put after the derivation and they

imply that they refer to the particular Laws of Etymology enunciated by the author in the Preface. Thus, for a thorough understanding and close following of the lexical matter one has first to acquaint oneself with what is contained in the Preface. The Preface itself is very interesting and deserves careful study. The execution of the work has been on the whole quite good. The author must be congratulated on having brought out single-handed these parts of the Lexicon, which will ever be a monument of his labour of love and zeal and which will help greatly the seekers of knowledge and votaries of truth to know and to realise more and more the importance and greatness of the Tamil language, which has not only been not understood but oftentimes misrepresented. Time alone will show how far we can advance by Gnanaprakasar's method.

There was a time when Hebrew was considered to be the parent of all other languages. That illusion is now gone. For a brief time, a confused notion that the European languages were derived from Sanskrit was in vogue, but it was Sir William Jones that in 1786 dispelled this wrong idea and put forth the view that Sanskrit, Latin, Greek and so on "have sprung from some common source which no longer exists." August Schleicher (1821-68) emphatically denied any relationship between the Indo-European and Semitic consonants. The theory the compiler of this Lexicon is advancing, namely, that the Dravidian and the Indo-European came from a common stock, has not so far been generally accepted by philologists. He himself is conscious of this (Preface, p. vi). It is just possible that with fresh data becoming available from time to time, it could be proved one day that the Dravidian and the Indo-European came from a common parent. What primarily stands in the way of accepting today such a position as this is that similarity in grammatical structure is lacking. Rev. Fr. Gnanaprakasar suggests however (Preface p. xxi), that the two families of languages became separated at the root stage and that the morphology of each family was independently worked out. In this connection, the remarks made by Holger Pedersen of the Copenhagen University in respect of the similarities between the Indo-European and Finno-Ugrian seem to be worthy of note. He said "consideration of the problem whether sound-laws still unknown to us, or morphological development not yet understood, have obliterated the originally more numerous points of similarity, whether the vocabulary in one of the families was largely renewed after the period in common, we must postpone until later." Here too, it is possible to discover such sound-

laws and processes of morphological development as will ultimately help in establishing the relationship between the Dravidian and the Indo-European but till then it could not be claimed that the relationship has been proved.

The Head of the Tiruppaṉandāḷ Mutt, His Holiness Kāsivāsi Swaminatha Tambiran, has helped the author to a certain extent by means of meeting the cost of the publication of Part I. It is hoped that other philanthropists, whom our country is not lacking, will help the author in bringing out in its entirety the Lexicon, which may form the basis of many fruitful studies hereafter. The author himself does not claim that all his derivations would be acceptable (Preface, p. vii). All the same, the book is a valuable and interesting record of his impressions and *bona fide* belief that the Dravidian and the Indo-European families were at one time related and that ultimately the relationship could be further broadened so that the Unity of language on Earth may probably be established. The book therefore seems to nurture the suspicion that all the languages of the globe are related to one another —a position which scholars of the eminence of Dr. T. G. Tucker and Mr. H. Pedersen are reluctant to assume.

A. C. CHETTIAR.

Road Rail Transport—By Mr. S. R. N. Badri Rao, M.A., M.Litt., with an Introduction by Prof. B. V. Narayanaswamy Naidu, General Editor, Annamalai University Economic Series, 1941 (Pp. lvii + 608, price Rs. 5).

This is a publication by the Annamalai University, being originally a thesis prepared by Mr. S. R. N. Rao under the guidance of Prof. B. V. Narayanaswamy Naidu and approved for the degree of Master of Letters. In this volume Mr. Rao has made a comprehensive and careful study of the problems of Road Rail Transport with special reference to conditions prevalent in Travancore, Coimbatore and Hyderabad. The book is divided into two parts: Part I deals with Railway Transport, while Part II deals with Road (Motor) Transport. Each part covers quite a wide range of topics. In Part I, the author takes a general survey of the development of road and rail transport in India and examines their respective spheres of influence. This is followed by a very interesting and clear exposition of the theory and practice of Railway Rates, illustrations being drawn from conditions prevailing in America, Canada, Africa and Australia. The influence of competition

in rate-making is clearly brought out and the different ways in which railways resort to discrimination and at times, show undue preference, are explained with special reference to Indian conditions. A very interesting section of the thesis relates to the analysis of Indian freight rates in respect of some important commodities, such as coal, tobacco, linseed, groundnuts and rice. Other chapters in Part I deal with some aspects of Railway Administration, such as railway finance and the problem of increased railway earnings.

In Part II the author deals with the various aspects of road transport relating to its operational basis and the competitive ability of roads as compared with Railways. In this connection, a very commendable and original attempt has been made to assess the comparative road and rail freight rates. This is followed by an original and novel study of the transportation systems in Travancore, Coimbatore, Hyderabad and of the London Transport Board, showing how a well organized transport system, whether undertaken by the State as in Travancore and Hyderabad or private enterprise as in Coimbatore could function smoothly. Subsequent chapters deal with the need and method of road transport control legislation in foreign countries and the problem of rail-road co-ordination. The author, while welcoming statutory co-ordination of these two forms of transport, stresses the need for voluntary co-ordination side by side.

The publication under review is probably the first successful attempt at a detailed study of the problem of rail and road transport in this country. The author has taken very great pains in collecting his data, in spite of the none too helpful attitude of the Railways, and presenting them in an intelligent and intelligible manner. The thesis bears obvious marks of constructive scholarship, commendable patience, and unbiased judgment. Both Mr. Rao and his Professor, Dr. B. V. Narayanasyamy Naidu, deserve to be warmly congratulated on this publication which does credit to the research work carried on under the auspices of the Annamalai University. Mr. Rao's work merits wide publicity, and we feel sure that a careful perusal of the Volume will amply repay the reader interested in obtaining accurate knowledge and helpful guidance in respect of the present day transport problems and policies in this country. The utility of the book is enhanced by the inclusion of statistical appendices, bibliography road and railway maps and graphs.

S. G. BERI.

The Madras General Sales Tax Act—A Study. By Dr. B. V. Narayanaswamy Naidu and Mr. S. Thiruvengadathan, published by the Annamalai University, 1940, (pp. 220, price Rs. 1-8-0).

This is a very timely and welcome publication in view of the introduction of new taxes such as the sales tax by some of the Provincial Governments in India since the inauguration of Provincial Autonomy in April 1937. The subject of sales taxes is comparatively a novel one in this country with the result that all kinds of misconceptions prevail about it in the country. The authors are to be congratulated on their commendable study of the operation of the Madras General Sales Tax Act (1939) in the South Arcot District of the Madras Province.

The book under review covers a wide ground. The authors offer a very readable account of the Sales Taxes in foreign countries where these taxes have been a feature of the fiscal systems in the war (1914-18) and post-war years. The only notable exception to the wide spread prevalence of Sales Taxes is Great Britain, which has not resorted to them partly because of the popular feeling that they constitute a burden on business and partly because of the psychology of the tax payer who prefers direct to indirect taxes. The Madras Sales Tax, while it conforms to the broad principles of sales taxes in foreign countries, yet differs from them in certain respects, such as omission of services on the one hand but inclusion of food and other necessaries of life on the other. The authors justify their departure in view of the special conditions in the Madras Province. They give a very succinct account of the history of the sales tax in recent years in the several provinces in India and also offer illuminating comments on the constitutional difficulties under the Government of India Act (1935) and the award of the Federal Court in the case of the Petrol Tax levied by the Government of the Central Provinces and Berar. A very interesting analysis of the motives behind sales taxes, the principal justification for which is productivity, reveals the fact that while Madras has resorted to sales taxation for financing prohibition, Bombay has adopted it for launching its rural development programme. It is noteworthy that the Government of Madras were the first to introduce a General Sales tax although selective sales taxes had been levied earlier by other provinces e.g., C. P. and Bombay.

In successive chapters the authors consider the nature and form of the General Sales tax in Madras, its administration, accounts and accounts checking, double taxation, tax evasion, shifting and incidence of the tax, effects on business turnover and middlemen and dislocation

of business. The effects of the sales tax on the business of co-operative stores has also received the attention of the authors who point out that though the turnover of consumers' co-operative societies has not been adversely affected, the same cannot be said about their development and put in a plea for a sympathetic consideration of their case by the Government. A number of appendices increases the utility of the publication. As the authors themselves point out in their introduction they could not undertake certain fields of enquiry such as the influence of the tax on prices, cost of living and wage level, with the hope of getting positive results, owing to the outbreak of the present war just a month prior to the coming into force of the Act. They have, however, noted the tendencies in these spheres. It should also be noted here that the enquiry into the working of the Sales tax was initiated only 10 months after its introduction, and as such the period was too short to permit of valid conclusion being drawn especially so far as long-range results are concerned. Nevertheless the enquiry has a great value, so far as the early reactions of the General Sales Tax and the difficulties in its administration are concerned. Besides the authors have been able to show that much of the public prejudice against the sales tax is unfounded and that its adverse reactions on consumers, wage earners, merchants and business are exaggerated. It is true that its main justification is productivity and it is a matter of little surprise that productivity, which covers a multitude of sins in taxation, has naturally enough appealed to the needy Provincial governments. It is, however, too early to say how far the sales taxes, general and selective, are likely to equalise the burden of taxation on the various sections of the community, or as is commonly claimed to shift the burden of taxation from country to towns. Nevertheless as the sales taxes bid fair to be a permanent and indispensable factor of Provincial tax systems, it behoves students of public finance dispassionately to study the new form of taxation in all its aspects with a view to gradually improving it.

It is from this point of view that the publication under review is most opportune and fulfils an urgent need of the hour. It is gratifying that the Economic Department of the Annamalai University under the guidance of Dr. B. V. Narayanaswamy Naidu has shown a rare and praise worthy initiative in launching upon investigations, involving field work, into some of the vital socio-economic problems that confront the country. This endeavour should encourage research work in a most fruitful channel and help to place applied economics on a scientific footing in this country.

S. G. BERI.

EXCHANGE LIST

Hindustan Review.
Half Yearly Journal of the Mysore University.
Economica, London.
Philosophical Quarterly.
Reading University Gazette.
Mysore Economic Journal.
Chemical Abstracts, Easton Pa.
The Punjab University Gazette.
Journal of the Bombay University.
Quarterly Journal of the Mythic Society.
Publications by the Oriental Library, Baroda.
Publications by Kungl. Universitetes Bibliotek, Uppsala, Sweden.
Publications by Tohoku Imperial University, Sendai, Japan.
Journal of the Madras University.
Bulletin de l'Ecole Francaise d'Extreme-Orient—Hanoi (Indo-China).
Djwa—Java-Institute, Jogjakarta, Java.
Varendra Research Society, Rajshahi, Bengal—Annual Report and Monographs
Quarterly Journal of the Kannada Literary Academy.
Journal of the Andhra Historical Research Society.
Indian Culture.
Scripta Mathematica.
Indian Historical Quarterly, Calcutta.
Journal of the Bombay Branch of the Royal Asiatic Society.
Review of Philosophy and Religion.
Publications of the U.S.S.R. Society for Cultural relations with foreign countries, Russia.
Proceedings of the Durham Philosophical Society, Newcastle.
Collected papers from the Faculty of Science, Osaka.
Bulletin of the Calcutta Mathematical Society.
Science and Culture, Calcutta.
Indian Co-operative Review, Madras.
Epigraphica Indica.
Spolia Zeylanica.
Publications of the R. Swedish Academy of Sciences, Stockholm.
Bijdragen Tot De Taal, Land-En Volkenkunde Van Nederland Indie-s-Gravenhage.
Monthly Weather Report, Poona.

Scientific Reports of the Imperial Institute of Agricultural Research.
The Aryan Path.
Indiana.
Vishwa Vani—A journal of Indian Renaissance.
Journal of the Madras Geographical Association.
Man in India
The Poona Orientalist
Publications by the Industrial Intelligence and Research Bureau, Simla
The Mathematics Teacher, New York.
Duke Mathematical Journal
Publications of the Brown University, U.S.A.
Transactions of Tbilissian Mathematical Institute, Russia
Lingnan Science Journal
London University Gazette
The Adyar Library Bulletin.
The Indian Historical Quarterly.
The Vedanta Kesari.
Tamil Pozhil.
Annales de l'University de Paris.
The Bulletin of the Deccan College Research Institute
Indian photography and cinematography
The Journal of the Tanjore Sarasvathi Mahal Library.
The Visva Bharati Quarterly.
Journal of the U. P. Historical Society.

Annamalai University Economic Series—No. 9

GENERAL EDITOR

Professor B. V. NARAYANASWAMY NAIDU

THE PROBLEM OF RURAL CREDIT IN THE MADRAS PRESIDENCY

Published by the University
Annamalainagar
1941

CHAPTER 1

GENERAL SURVEY

"Credit supports the borrower as the rope supports the hanged" remarked Louis XIV in the 17th century when the nobles through extravagance and the peasants through thriftlessness had fallen into the clutches of the usurers. The same statement is true of India at present. The ruinous rates of interest which the agriculturist has to pay to the moneylender have led the agriculturist from one evil to another so that he finds himself now in a mesh out of which it is very difficult to extricate himself. This thesis is an attempt to analyse the various causes of debts and the nature and volume of indebtedness, to examine the various credit agencies, chiefly co-operative credit, and to suggest certain remedies for the ills of the agriculturists.

In the preparation of the thesis care has been taken to study the condition of the villager by personal investigation and to examine some credit agencies, notably the village sowcars, and moneylenders, the co-operative societies and land mortgage banks. In India the absence of a well organised statistical bureau to give information about the condition of peasants is a great handicap to all research students who set themselves to the task of collecting data about indebtedness and the general economic condition of the peasants. At present there are certain statistical reports relating to agriculture published by the Central Government and the Provincial Governments, but they deal only with the cultivation of crops, live stock and implements, vital statistics, the incidence of land revenue assessment, the harvest prices of certain important crops, the average yield of the principal crops in each province and such other data. But the socio-economic problem, which is so wide in scope, has not much statistics, except some scanty information in the provincial departments of co-operation and education. It is only in the Punjab that the Board of Economic Enquiry has done valuable work in the matter of rural surveys. Outside Punjab, only stray attempts have been made in other Provinces to conduct economic survey of villages. The Madras University, under the guidance of Dr. Slater, undertook an economic survey of South

Indian villages. Since then attempts have been made occasionally to conduct investigations in the villages. In South India, at the Annamalai University, attempts have been made at various times to study the condition of Prohibition in the villages of the Salem District, and the extent of indebtedness and nature of rural credit in some villages of South Arcot District. In 1930 the Madras Banking Enquiry Committee conducted an investigation in two representative villages in each of three representative districts of the Presidency and published a valuable report. Later in 1935, Mr. Sathianathan investigated into the nature of agricultural indebtedness in 141 representative villages in the Madras Presidency and submitted a valuable Report on Agricultural Indebtedness in the Madras Presidency. In his survey of some of the villages of the South Arcot District the present writer followed certain principles and, when tabulating the results, found that the conclusions arrived at independently tallied with those of Mr. Sathianathan. For example, the nature and volume of indebtedness together with the economic condition of the people were studied in 150 families in some villages of the South Arcot District.* Care was taken to study the problem of indebtedness in the light of the recent Agriculturists' Relief Act. The results were analysed to find out the distribution of indebtedness. In preparing the tables the method adopted by Mr. Sathianathan was taken into consideration. Tables 1, 2, and 3 of Appendix II prepared out of the figures of village survey are a study of the distribution of indebtedness from the point of view of the family, the individual, an acre of land and assessment of a rupee in the case of labourers, registered land-holders paying land revenue between Re. 1 and Rs. 100 and registered land-holders paying land revenue above Rs. 100. The conclusion arrived at is that small and medium land-holders who pay an assessment of Re. 1 to Rs. 100 are the most hard hit of the agricultural classes. Mr. Sathianathan's conclusions for 564 families spread over the Presidency (Vide Appendix II—Table 7) are the same as the conclusions arrived at in the survey of some villages in the South Arcot District. It is only by checking results that definite conclusions could be arrived at. The nature of indebtedness in the case of mortgages, bonds and minor loans (Vide Appendix II—Tables 13, 14 & 15) were studied and conclusions of the usurious rates of interest were derived from those results. The

*Appendix I, Questionnaire used by the Investigator.

cultivation expenses were calculated in the case of wet and dry crops after questioning many agriculturists.

In the investigation of moneylenders and indigenous bankers, it was very difficult to get at any information from them and hence the help of a friend of the Chetti community had to be requisitioned to get answers to the questionnaire on indigenous banking. If the money lenders are licensed, then there will be no difficulty in getting information about the methods and practices of the big money lenders. In the case of indigenous bankers, the Income-Tax Department could be of some help but that Department is very reticent in furnishing information to research students.

The organised credit institutions—the Co-operative Societies and the land mortgage banks—could be easily studied with the help of the Department of Co-operation. The inspection reports and audit reports of the Co-operative Societies and land mortgage banks can be easily examined in the Office of the Registrar of Co-operative Societies. Nor is it difficult to study the sanctioning of a loan by the Central Land Mortgage Bank. There is no difficulty in getting accurate statistics in the case of these organized institutions. The report on the working of co-operative institutions and the annual report of the Central Land Mortgage Bank contain valuable statistics.

The Royal Commission on Agriculture says "In regard to indebtedness, particularly, we entirely agree with the recommendation of the Indian Economic Committee of 1925 that intensive enquiries should be made into the extent of indebtedness of various classes and tracts, the causes of indebtedness, the source of loans and the rates of interest, and that the results of these enquiries should be published." The Commission believes that this field should be covered by private investigation and that statistics compiled should be in such a form as to permit comparisons to be made. It is, however, necessary that the quasi-official bodies of the type of the Punjab Board of Economic Enquiry and Universities with trained researchers assisted by Government financially and in other ways should conduct triennially or quinquennially economic investigations of all the villages in their areas. The results obtained by different agencies should be collated and published by Government. This will be useful not only in forming an idea of the growth of indebtedness and of the progress in the economic condition of the agriculturists, but will be the basis on which any legis-

lation affecting the agriculturists could be drafted. This will save a lot of time and energy for individual researches in finding out the volume of indebtedness in a certain area.

Here mention may be made of some of the difficulties faced by the investigators in their village surveys. The villagers are ignorant and illiterate, and their poverty is so great that if any person enquires into their assets and liabilities they at once take him for a potential Government officer enquiring into the condition of the people for a possible additional taxation. The investigator, in fact, has to visit the villages many days, become acquainted with the villagers, impress on them his mission and sympathise with them in their lot. When sympathetically treated, the villagers are very hospitable and, in fact, show an eagerness to furnish information. Unfortunately, they do not keep any farm accounts as in the West and even the figures regarding their debts are only rough figures. There are cases of debts contracted without any document to support the contract. If the peasants are constantly visited by the various agencies for figures and are taught the necessity for keeping accounts, they may have confidence in the investigators and realise the importance of such investigations.

After examining the nature, volume and causes of indebtedness in Chapter 3 and measures for the scaling down of debts in Chapter 4, an account is given in Chapter 5 of the business and methods of moneylenders. It has been stressed that regulation and licensing of moneylenders should be immediately brought about; for it would be a great help not only to the debtors but to the moneylenders as well; for they are sure to receive some concession from the Reserve Bank in the matter of rediscounting agricultural paper if they organise themselves. Chapter 6 deals at length with indigenous bankers and banking, the necessity for reviving hundis, which almost correspond to inland trade bills, and the reorganisation of indigenous bankers for receiving benefits from the Reserve Bank. Nidhis and chit funds, which originally sought to encourage co-operative endeavour and to stimulate thrift, if properly directed and controlled, are capable of becoming centres of great use to the needy majority of the Indian population. The sphere of the State in granting loans is extremely limited and it is pointed out how the state should confine itself to granting loans to the poor and in cases, where (due to the passing of a legislation of the nature of the Agriculturists' Relief Act,) there has been drastic curtailment of credit.

The strict enquiry into the repaying capacity of the agriculturist and the security he offers coupled with the complications of the taccavi manual rules makes it impossible for the agriculturist to resort to this type of loan often.

The centre of the problem of rural credit in the Madras Presidency is the reorganisation of the co-operative movement. The Royal Commission on Agriculture rightly remarked that 'if co-operation fails, there will fail the best hopes of rural India'. Much of the material for this chapter on Co-operation has been gathered by personal inspection of some of the co-operative credit societies in the South Arcot District, and by a study of the official papers in the Office of the Registrar of Co-operative Societies, Madras. The chapter begins with a brief description of the theory of co-operation and a historical survey of the progress of co-operation in the Madras Presidency. After a detailed examination of the constitution and management of the primary credit societies the financing institutions of primary credit societies are critically examined. It has been suggested that in the best interests of co-operative movement, the existing Central Banks should continue to function and should not be replaced either by the banking unions as suggested by the Reserve Bank or by the branches of the Provincial Co-operative Bank. The main reasons for the failure of the Co-operative Movement are the dearth of selfless men who could run the co-operative societies in the villages, the inefficiency of non-official supervision which is not connected with the audit by Government, the preparation of the important property statement on which credit is based by the borrowers, the abhorrence of unlimited liability, the execution of awards which converted overdue loans into owning of property by societies and banks and, above all, the negligence of the non-credit side of co-operation. It has been suggested that supervision should be vested in a disinterested, independent body or that government should take up supervision for such time as the societies are well developed. Unlimited liability should not be more a rule than an expediency. Careful checking of the property statement is very essential and the Registrar in a recent circular wants the statement to be checked thrice. The problem of overdues could be best tackled on the model of the Burmese scheme of hire purchase system. Above all, efforts should be made to introduce, in selected centres, multi-purpose societies which will develop the whole life of the villager and make him creditworthy.

Already there are some societies in Coimbatore and Salem and East Godavari which are capable of developing into multi-purpose societies.

Chapter 9 deals with the finance of Marketing and the movement of crops, the methods of marketing produce adopted in some foreign countries, notably the United States of America, the various principles, that regulate co-operative marketing, the special features of grain centres in Chidambaram Paddy Sales Society, the help that the Reserve Bank can give in the construction of warehouses, and the need for compelling of the members to sell through that Society where there is a Sale Society. A suggestion is made in this chapter for amending the Reserve Bank of India Act so as to give intermediate credit to the agriculturists.

Agriculture, like any other industry, requires long-term and short-term credit. Chapter 10 deals with the supply of long-term credit and the working of land mortgage banks in this Presidency. The procedure in regard to the sanction of a loan to a member of the primary society has been examined at some length. The controversy between Sinking Fund and the Debenture Redemption Fund has been examined and a suggestion is made for the starting of a special fund for meeting any loss on account of interest on investment of funds out of the Debenture Redemption Fund. This chapter also examines questions such as the delay in the grant of loans, the necessity for the extension of the period of the loan, the increase in the amount of the loan that could be granted by the Central Land Mortgage Bank, and the granting of loans by Central Land Mortgage Bank direct to individuals.

In conclusion, the co-ordination of credit and the attitude of the Reserve Bank towards co-operation and other agencies of credit have been discussed. Generally Central Banks maintain their assets in short maturity credit instruments which are considered to be easily marketable and promise to be self-liquidating at maturity. As the Central Banks accept even long dated government securities, they should not refuse to accept first class securities of any kind as sound assets. For these reasons central banks should maintain long dated agricultural bonds, the principal and interest of which are guaranteed by Government, as part of their assets. The Reserve Bank of India in their circulars to the co-operative associations gives only sound advice regarding their reorganisation and does not come forward with immediate help. While the co-operative banks should be run on business lines as the Commercial Banks are run, the present position of the

movement does not allow such strict principles to be adopted. It is only when the multi-purpose society is firmly established and the life of the villager is developed can there be a first class agricultural paper that can be rediscounted with the Reserve Bank easily. To develop the bill habit in the people, the Reserve Bank should utilise part of the profits from the note-issue department in the building of ware-houses. A well developed co-operative movement will find it easy to conform to the regulations of the Reserve Bank in the matter of dealing with it directly. Regarding the help the Reserve Bank could give to Central Land Mortgage Bank, it is merely advice in the flotation of debentures. The Reserve Bank through its Agricultural Credit Department, which should be a co-ordinating authority for intermediate and long-term credit as in the Federal Farm Credit Administration of America, float the debentures of the Central Land Mortgage Banks. Section 18 of the Reserve Bank of India should be taken advantage of in dealing with individuals direct until individual producers organise themselves. The Bank should be authorized through its Agricultural Department to make advances for periods not less than nine months and not more than three years and should be empowered to borrow from the Government and float debentures. It is suggested that the Reserve Bank can easily invest its money in the bonds, not necessarily for five years, but for twelve months to be renewed at maturity every time. This practice is followed by the Savings Bank of Victoria which invests its funds in the Credit Foncier Department of Victoria, Australia. Regarding the allocation of the profits of the Agricultural Credit Department, the practice obtaining in the Rural Credit Department of the Commonwealth Bank of Australia should be followed.

It is suggested that credit by itself will not save the agriculturist. An intense propaganda by the Agricultural Department regarding the adoption of better instruments of cultivation coupled with the starting of multi-purpose societies will improve the return from land. While in the West mechanised farming has resulted in an appreciable increase in the yield from farms, every effort should be made in this country to develop joint farming and the use of machines in ploughing, sowing and harvesting. It has become a common objection in this country that the poor peasant with his small farms will not be able to introduce these improved methods in agriculture. If the peasant is to cultivate his lands individually there will be no salvation for him. He will be

continuing his old methods of agriculture but with very slight improvement effected by the Agricultural Department and will not find substantial improvement in his lot. Above all, what is needed is a stable price level for the produce of the farmer. Only a Central Bank can achieve this stable price level and such a Central Bank should be free from outside control in order that it may act in the best interests of the country. "To be dragged after the chariot wheel of the Bank of England and be dictated by the exigencies of the British Treasury seems indeed derogatory to the dignity of the country." Though at present we have a Reserve Bank which possesses the outwardly fine structure of an advanced type of central banking, it is, in its practical working, bereft of the life and spirit of a centralised banking system.

Chapter 2

RURAL ECONOMY IN THE MADRAS PRESIDENCY

A description of the physical features and resources of the Madras Presidency and an outline of the economic conditions provide the necessary background for a discussion of the problem of rural credit.

The Madras Presidency may be divided geographically into the eastern coast, the western coast and the table land. The two big mountain ranges—the Eastern and the Western Ghats run along the two coasts leaving between them and the sea narrow strips of land which are usually fertile. The three rivers, the Godavari, the Kistna and the Cauvery are the principal sources of irrigation in this Presidency.

Climate and Rainfall

The climate is generally hot and enervating and the mean temperature in Madras in May is about 89° and in January 76°. The hill tracts upto 4,000 feet are malarious, but the plains are comparatively free from serious malaria. In general, as the climate is warm and enervating, it induces lethargy and slackness in work. There are two monsoons in the year—the southwest monsoon which causes fairly heavy rainfall on the Western Coast in the districts of Malabar and South Kanara, and the north-east monsoon which causes heavy rainfall in the rest of the Presidency. The main river deltas are dependent on the south-west monsoon. Rains do not fall regularly year after year and the years of drought are often followed by floods which are devastating in their nature. The poor agriculturist who depends on rain suffers both from drought, when for want of rain his field dries up, and from floods, which destroy his valuable crops. It is quite usual for the Ceded Districts to face famine owing to drought. Famines in the rest of the Presidency are not common, though floods usually destroy property and cattle.

Tenures

The main forms of tenure are the ryotwari, the zamindari and the inam. The principal tenure in the Presidency is the ryotwari system of holding lands under which the ryot holds his land direct from the Government subject to the payment of land revenue. The powers

of alienating land are not restricted. The land revenue ordinarily remains fixed for a period of thirty years at the end of which period it can be decreased without limit or increased up to 18¾% on the recommendation of a special settlement officer. A ryot holding a land will be assessed whether he cultivates it or leaves it fallow, but is entitled to remissions of land revenue granted for drought or other satisfactory causes beyond the control of the ryot. If a certain piece of waste land is felt useless by a ryot, he can relinquish the land to Government and thus avoid paying land revenue. Table 33 of Appendix II gives the extent of the total area of ryotwari holdings, the assessment to land revenue, and the remissions for 1937-38. The extent of the dry and wet ryotwari holdings in this Presidency is 22,309,808 acres and 5,285,770 acres respectively and the assessment on these lands for the year 1937-'38 is Rs. 25,201,295 and Rs. 35,087,126 respectively. Second crop assessment and charge for water on government lands are Rs. 41,25,694. The total remission of land revenue for the year is Rs. 34,33,828.

Under the zamindari tenure, the Zamindar holds his estate under a 'sannad' by paying to the Government a fixed sum every year known as the 'peshkash.' There are occupancy tenants under the Zamindar who pay him a fixed rent. They have an occupancy right which is alienable without any restrictions. The ryot, however, can be evicted for non-payment of rent and for rendering the land unfit for cultivation. The number of acres owned by the Zamindars between 1937-38 was 13,242,230. The estimated revenue realised by the Zamindars was Rs. 2,02,35,089 and the peshkash payable to the Government was Rs. 46,79,511.* The relations between the Zamindar and his ryots are regulated by the provisions of the Estates Land Act.

There are inam holdings of various kinds, the main features of which are that land is held on a reduced or nominal assessment or quit rent on condition that certain religious, charitable and other services are rendered to the community and failure to do this will result in the resumption of the land or full assessment at the ryotwari rate.

The tenures in Malabar and South Kanara are different. In Malabar the Janmi holds the land of Government on payment of assessment. Under him the Kanamdar holds on a twelve years' lease and he has a right to renew on payment of a fee. When he leaves at the end of a

*Table 32—Appendix II.

period, he is entitled for compensation for all improvements he has effected. Both the Janmi and the Kanamdar also lease their lands to tenants for short periods. The Kanamdar's position and rights in land are little different from those of the Zamindari occupancy tenant. In South Kanara, the holding is held under the multi tenure and the mulawargadar holds land under government subject to payment of kist and has special claims on adjacent waste lands called kumaki right. There are two classes of tenants—the mulgenidars with occupancy rights and chalginedars or tenants-at-will.

Population

The population of the Madras Presidency according to the census of 1931 was 46,740,107. The population in 1921 was 42.32 millions. There was therefore an increase in population of 4.42 millions during the previous decade. Deducting the population of Ganjam and a portion of Vizagapatam from the 1931 figures, the population of the Province as now constituted according to the Census of 1931 is 44 millions. The estimated population in 1939 taking into consideration the decennial increase is 47.52 millions. It was calculated both in 1921 and 1931 census that the percentage of the population dependent upon agriculture was 71%. So we may roughly calculate that 34 millions of people in this Presidency in 1939 were supported by agriculture. According to the 1931 census the chief contributions to 1000 persons engaged in cultivation are —agricultural labourers 429, cultivating owners 390, cultivating tenants 120, non-cultivating owners 34, non-cultivating tenants 16.

Classification of Land and Area Irrigated

All lands in the Presidency are surveyed and divided and then again sub-divided as occasion arises for such sub-divisions. From the revenue point of view, cultivable lands are divided into dry and wet. On the wet lands irrigated crops are normally grown. Dry lands are generally on a higher level than wet lands and depend almost entirely upon rainfall for water. Wet rates are much higher than dry rates; but if water from a recognised source of irrigation is supplied to dry lands or for raising a second crop on wet lands, an extra water rate is charged. In the Western districts of Malabar and South Kanara there is an additional classification of lands known as garden in which coconut, arecanut and spices are grown.

Soil plays a great part in the productive capacity of land in the coastal plains. The laterite soil in the western plain reduces agricul-

tural productivity to an appreciable degree, though that portion of the Presidency enjoys the heaviest rainfall. In the eastern plain, particularly in the deltaic regions, the ferruginous red soils are found to be more productive than the laterite though they require continual watering. In this region the yield of crops depends on the efficient system of artificial irrigation. The Mettur Dam is the biggest achievement in the irrigation system of the province. The dry tracts of coastal plain where black soils are found conserve moisture during a long time and grow both summer and winter crops in spite of scanty rainfall. Cotton is generally grown in this region.

The rivers Godavari, Kistna, and Cauvery supply water to the three main deltaic areas; and the districts to benefit by channels from these irrigation sources are East Godavari, West Godavari, Kistna, Guntur, Tanjore, Trichinopoly and South Arcot. The development of artificial irrigation schemes in the eastern plains is due not only to the insufficiency of rainfall but the necessity of continuous water supply to those regions. A splendid canal irrigation has been evolved in this region by controlling the deltaic rivers. The Cauvery-Mettur project which was completed at a cost of over 7 crores of rupees has brought under cultivation a vast dry area in the Tanjore District—the percentage of irrigated area rose up as high as 73% in the Tanjore delta—besides supplying more water to the old Cauvery delta. The South-West monsoon rarely fails on the West Coast. Lands to the West of the hills and those areas irrigated by rivers rising in the Nilgiris and the Western Ghats and the Travancore hills have an adequate water supply. This supplies Malabar and South Kanara districts, the Godavari, Kistna and Cauvery deltas, the Kurnool-Cuddapah canal, the Periyar system, and a number of minor irrigation sources. In the arid black soil region of the north, the very nature of the soil does not require any artificial irrigation to a great extent. A considerable area in South Madras, in Ganjam, Vizagapatam and Nellore is dependent upon irrigation by tanks and minor projects which rely on local rain or small rivers for water. The total area of the Province in 1937-38 was 79,802,543 acres. Of this, forest accounted for 16.5 per cent, lands not available for cultivation 18.3%, cultivable waste other than fallow 13.2%, current fallows 11.9%, and land brought under cultivation 40.1% or 32,031,679 acres. The total area irrigated in the Province excluding lands that were transferred to Orissa, was 8,745,444 acres. This formed only 27.3% of the net area sown in the province. Government canals, the most important source of irrigation, accounted for 42·9% of the total area irrigated, tank 36·5%, wells 15·5% private canals 1·9% and other sources, the remaining 3·2%.

Area Sown with Crops

The total area under all irrigated crops was 10,898,480 acres (1937-38) representing 29.5% of the total area under all crops. Of the total area, the area under cereals and pulses was 88.3%, oil-seeds 3.2%, cotton 2.7%, sugar 0.8% and other crops 5%. From the point of view of irrigation, the most important crop was paddy, which accounted for 78·2% of the total area under paddy. The percentages for other crops irrigated were 52.5 for ragi, 29.6 for indigo, 16.1 for gingelly, 11.6 for cotton (mainly Cambodia), 11.2 for cumbu, 8.7 for cholam and 4.7 for groundnut (mainly summer groundnut). The following table detailing area sown with crops will be interesting study.

Crops	Area in 1937–38 acres	Area in a year of normal season (Acres)	Percentage of the area under crop to the total area under all crops in 1937–38
Paddy ..	10,140,831	10,200,160	27·5
Cholam ..	4,599,444	4,632,090	12·5
Cumbu ..	2,571,988	2,712,090	7·0
Ragi ..	1,618,118	1,762,150	4·4
Korra ..	1,298,531	1,657,850	3·5
Varagu ..	934,055	1,075,830	2·5
Samai ..	518,948	589,940	1·4
Bengal Gram ..	52,240	92,090	0·1
Horse Gram ..	1,647,336	1,738,200	4·4
Sugarcane ..	97,965	115,600	0·5
Groundnut ..	4,657,596	3,075,230	12·6
Gingelly ..	794,875	764,060	2·1
Castor ..	246,718	293,550	0·7
Cotton ..	2,543,306	2,284,670	6·9
Indigo ..	23,167	35,440	0·1
Other non-food crops ..	1,374,861	1,303,450	3·7
Total of all food crops ..	26,623,219	27,792,580	72·1
Total of all non-food crops ..	10,294,717	8,398,520	27·9
Total area under crops	36,917,936	36,191,100	100

The variation in acreage of some important food and commercial crops taking the acreage in 1928-29 as 100 is given below.*

Year	Index number of acreage of				
	Cereals & Pulses	Cotton	Groundnut	Sugarcane	Tobacco
1928-29	100	100	100	100	100
1929-30	103·52	100·48	87·23	110·14	100·58
1930-31	103·29	82·82	97·08	128·97	95·07
1931-32	102·38	89·44	71·63	130·35	105·32
1932-33	102·62	79·10	95·58	135·75	100·35
1933-34	100·30	87·47	102·72	136·57	97·10
1934-35	99·64	93·48	63·90	140·68	114·52
1935-36	92·47	108·09	68·49	135·91	109·47
1936-37	92·70	100·90	94·99	134·33	99·19
1937-38	89·75	103·19	126·59	109·98	115·28

According to the indices, there was a gradual reduction in the area under cereals and pulses amounting to 10·25% in 1937-38 as compared with 1928-29, but an increase of 17·03% in the total acreage of the four important commercial crops. The area under food crops which was 76·1% in 1927-28 fell to 72·1% in 1937-38. Thus, in recent years there has been a gradual replacement of the areas under cereals and pulses by commercial crops. " This state of affairs is due partly to the impetus afforded by the comparatively more favourable prices which the commercial crops have in general commanded during the depression years in relation to prices of food crops and partly to the increasing ex-

*Economic resources of the Province of Madras and possibilities of their development by Mr. L. B. Green, Director of Industries and Commerce.

ploitation of commercial crops for industrial purposes consequent on the gradual development of industries in this Province."

The Madras Banking Enquiry Committee says "The three main features which affect the value of land are: its net yielding power, the regularity with which it will give that return and its saleability." If we exclude the estates on the hills under European management, the paddy lands in the deltas are the most valuable. Water supply is ensured by artificial canal irrigation and the silt carried down by rivers constantly supplies a modicum of fertility and the crop yielded gives a good return. Though the lankas or islands of silt in the Godavari are more fertile and though tobacco and garden crops grown on those lands are more valuable, the sale value of land is less in proportion to annual return, because they are submerged during high flood and washed away. Tea, coffee, and pepper, which certainly give per acre a better yield than most other dry crops, form only a small area of the Presidency. Because cultivation of these crops requires huge capital and the period of waiting for the crops for a return is four or five years, the Indian peasants refrain from growing such crops leaving such business to rich European planters. Hence these areas have only a low density of population in spite of fertility. The densely populated area is the paddy region in the coastal plains. Here too, there is a difference between the density of population in the canal irrigated tracts and that in the unirrigated tracts of river deltas. "In fact," as one writer says "agriculture is so much dominated by canal irrigation that the growth of population is limited by the possibilities of the extension of irrigation." For example, in the Kaveri delta, 'a comparative saturation of population has an obvious connection' with the fact that the Kaveri irrigation system is being utilised to its maximum." Besides, Coimbatore, Salem, Trichinopoly, Tinnevelly and Madura—where there is a combination of food crops, *viz.*, rice, with commercial crops, chiefly cotton—are prosperous areas. In South Kanara and Malabar, the well-watered valleys of the West Coast, a long agricultural season yields a rich variety of food crops and commercial crops. Rice and millets in the low lands, garden cultivation of spices, condiments, sugarcane, cardamom and betel in the area above the low lands and ragi cultivation on the dry fields above garden lands, in addition to the intensive cultivation of coconut yield a good income to the people and the density of population is very high.

Value of Crops and Their Present Price.

The Madras Banking Enquiry Committee Report has given figures regarding the normal yield in pounds per acre of various districts in this Presidency (supplied by the Agricultural Department based on the actuals over a number of years.) As there is no possibility of any appreciable increase in the yield within a decade, those figures are summarised here for the whole Presidency.

		Lbs. per acre Average for the Presidency
Paddy Irrigated	..	1,750
„ Unirrigated	..	1,144
Cholam Irrigated	..	1,454
„ Unirrigated	..	574
Cumbu Irrigated	..	1,209
„ Unirrigated	..	543
Ragi Irrigated	..	1,470
„ Unirrigated	..	707
Korra	..	400
Varagu	..	866
Samai	..	457
Maize	..	1,068
Bengal Gram	..	497
Horse Gram	..	193
Sugarcane	..	6,418
Groundnut	..	1,114
Gingelly	..	302
Castor	..	233
Cotton Irrigated	..	244
„ Unirrigated	..	73
Tobacco	..	1,175

There are variations in the yield of crops not only from one district to another but between one field and another.

The following table will give an idea of the value of some important crops. Wholesale prices of forecast crops reported by Deputy Directors of Agriculture as prevailing during the harvest months in 1937-38 *:—

* Season and Crop Report of the Madras Presidency 1937-'38.

District	Paddy (Madras measure)	Jaggery (candy of 500 lbs.)	Cotton (bales of 400 lbs.)	Groundnut (candy of 500 lbs.)
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Vizagapatam ..	0 1 11	21 0 0	110 9 0	17 8 0
East Godavari ..	0 1 3	25 0 0	96 15 0	..
West Godavari ..	0 1 3	25 0 0	96 15 0	..
Kistna ..	0 1 0	30 0 0	105 0 0	17 8 0
Guntur ..	0 1 0	32 0 0	97 8 0	18 0 0
Kurnool ..	0 1 2	40 0 0	80 0 0	13 2 0
Bellary ..	0 1 4	19 0 0	..	21 0 0
Anantapur ..	0 1 2	20 0 0	..	20 8 0
Cuddapah ..	0 1 2	17 14 0	57 2 0	17 14 0
Nellore ..	0 1 0	25 0 0	63 12 0	17 0 0
Chingleput ..	0 1 0	25 0 0	..	25 14 0
South Arcot ..	0 0 11	23 12 0	..	27 12 0
Chittoor ..	0 1 0	18 0 0	..	21 3 0
North Arcot ..	0 1 0	20 0 0	..	22 2 0
Salem ..	0 1 1	18 2 0	..	20 11 0
Coimbatore ..	0 1 4	33 8 0	..	16 10 0
Trichinopoly ..	0 1 3	36 8 0	91 14 0	12 7 0
Tanjore ..	0 1 0	28 0 0	..	25 8 0
Madura ..	0 1 3	38 0 0	..	13 10 0
Ramnad ..	..	..	..	..
Tinnevelly ..	0 0 11	35 0 0	..	16 0 0
Malabar ..	0 1 2	47 8 0	..	..
South Kanara ..	0 1 3	40 0 0	..	..

Holdings

The highest total number of joint and single pattas for fasli 1340 are those yielding a land revenue of above Re. 1 and not less than Rs. 10* (Figures regarding classification of pattas are not published in the recent reports of Land Revenue Settlement). The number of pattas which yield a land revenue above Rs. 50 is not large. A revenue holding may consist of a single field or sub-division or a number of fields and sub-divisions in the same village. If a person holds land singly, a single patta is given to him and if he holds a land jointly, as is generally the case in South India, joint pattas are issued to the ryots. Under joint patta where names change often, it is necessary to have the pattas trans-

*Vide Table 17—Appendix II.

ferred in the register. Of late, joint pattas are on the decrease and Mr. Sathyanathan thinks that such decrease is "a sign partly of the disintegration of the joint family or the growing urge for partition." In the survey conducted in the Cuddalore Taluk, it was observed in many cases that the smallest piece of holding was $\frac{1}{16}$ acre or 0·06 acre. To take only one instance, a peasant who was owning lands to the extent of 3 acres dry and ½ acre wet had his land distributed in fifteen places and the longest distance from one piece to another was more than half mile. These small holdings are a big obstacle to land improvement and the introduction of mechanised farming. It is on the partition of lands that the villagers fight and go to the highest tribunal for judgment.

Cultivation Methods

The yield of the crop depends on methods of cultivation and the latter are partly influenced by the system of holdings. Holdings in India being very small, no attempt has been made to introduce mechanised farming. Even the big landholders in South India follow the same method of cultivation as the small holder. The wooden plough, the sickle and the spade are all the instruments used in cultivation and with the employment of men and cattle, the lands are ploughed, sowed and crops are harvested. The continuation of this age-long custom has not improved the yield of the land. In fact, the yield of land is deteriorating, because of the inefficient methods of cultivation. Local supplies of manure are defective. Manure crops, e.g., sunn-hemp, are grown in certain places, green leaves are used in some places and oil cakes in some other districts. In regard to paddy, considerable variations in seedlings are employed and this depends largely on the transplantation of seedlings in large bunches or singly. The rotation of crops, so important in other countries, is practised only to a limited extent in this Presidency. For example, in the Coimbatore District, cotton alternates with cholam. In the dry taluks of the Kistna District, there prevails the custom of growing five crops together on one bit of land with the hope that at least one will succeed. But this is not by any means rotation of crops ; it only reveals the extremely precarious condition of the Indian ryot.

Cultivation expenses for an acre of dry and wet land collected from the survey in the Cuddalore Taluk are given in Appendix II—Table 62. After meeting cultivation expenses, paying land revenue, etc., the net income from land will be less than half the value of crops. This is the case in a very good season.

Social and Religious

The economic position of the agriculturist is affected to a great extent by the social and religious aspect of the farmer's life. Caste and racial sub-divisions, which are fast disappearing in the towns, but which still affect the condition of life in most villages, impair efficiency and perpetuate economic differences. The lower strata of society still cling to age-long customs and superstition. The influence of towns has not affected them. Religion has become almost " a conglomeration of superstitious beliefs which have become a serious economic handicap." For example, even when money can be obtained only at usurious rates, there is much extravagance on religious feasts and on the occasions of births, marriages and funerals. For the improvement of village life, superstitious beliefs should be eradicated by constant propaganda and education.

CHAPTER 3

PRINCIPLES OF AGRICULTURAL CREDIT IN INDIA

Should Agriculturists Borrow?

M. T. Herrick said "In a financial sense, credit is that confidence reposed in a person which enables him to obtain from another the temporary use of a thing of value. It may be accorded on the security of real estate, personal property, or mere character; and so is classified in three general forms deriving their names from the kind of security taken." The bulk of world's business is done on credit, that is, on the trust reposed by one person in another. Nations and public corporations also borrow on the credit they command and at present they are bonded beyond thought of redemption. Industrial companies and commercial houses usually operate on the large credit they receive. Agriculturists also must and will borrow to carry on their operations. This necessity for the agriculturist to borrow more than in any other industry is that an agriculturist's capital is locked up in land and stock and must be temporarily mobilised. For these reasons credit can neither be considered objectionable nor can it be considered a sign of weakness. It is a necessity and "borrowing and indebtedness are useful or dangerous in proportion not merely to the use made of the sums borrowed, but in proportion as they are the result of a prudential foresight or of necessity extraneous to the demands of agriculture."

The True Postulates of Credit

In his monumental report on the possibility of introducing Land and Agricultural Banks in the Madras Presidency (1895), Nicholson gives a brilliant analysis of the conditions on which credit can be most profitably obtained by agriculturists. According to Nicholson, the true postulates of credit are "absolute proximity of lender and borrower, complete security to the lender as regards the title of the property offered, its freedom from prior encumbrances, the recovery of his capital and interest at due date and in convenient amounts, with facilities for enforcing such recovery in case of arrears; thorough safety and facility to the borrower, in his ability to obtain cheap loans, at any time, to an amount

proportionate to the security he can offer, and upon terms which will be so equitable in themselves, so convenient as regards repayment, so free from all risk of deliberate entanglement, so based upon published rule, so devoid of any tendency to discount necessity or urgency otherwise than by an equitable insurance, that he can calculate on repaying the full fruit of his prudence, and find, in credit, a powerful auxiliary to his productive powers and stability." The terms of repayment of a loan must be so arranged that the agriculturist can repay the loan from the profits obtained from the transaction for which it was obtained. Accordingly an improvement to land must be repayable by instalments over a long period. Advances for raising crops or for the maintenance of the agriculturist's family during harvest may be repayable in a lump sum or in instalments according to convenience. Examining the position of the individual moneylender on these postulates, Nicholson concludes that the credit given by him is absolutely defective except for the fact that he fulfils the single postulate of proximity. Trading as he does on private capital, it is impossible for him to satisfy the demands for loans at any time and to any amount. He cannot lock up his capital and draw his money in instalments. The moneylender cannot satisfy the two other postulates of complete security to the lender and thorough safety and facility to the borrower. Only organized credit institutions can supply cheap and facile credit. But as the indebtedness of the agriculturist is due to causes outside the demands of agriculture, and is not due merely to the action of the usurer, no mere change in the machinery of credit can be a radical cure. So Nicholson says that the credit which the agriculturist gets "must indeed be cheap and facile, in that it shall be ever at hand, but it must be credit which shall only be so obtainable that the act and effort of obtaining it shall educate, discipline and guide the borrower; it should be granted only to those who have learnt to think, to plan, to save; the method of providing it must teach the lessons of selfhelp, and mutual aid, and suggest the extension of those lessons to matters outside of mere credit; it must be safe not merely in eliminating the dangers of usury but in being controlled, needful and productive." These postulates of true credit laid down by Nicholson can only be fulfilled by the Co-operative village banks.

Credit Needs of Agriculture

According to the nature and purpose for which the different kinds of credit are employed, the credit needs of the agriculturist may be broadly classified into short term, intermediate and long term. Short

term credits are for seasonal agricultural operations which include not only the expenses of raising a crop and storing and marketing it but the maintenance of the ryot and his family, periodical payments of land revenue and other public charges connected with land. The principle that should regulate short term credits is that agriculturists should use short term credit for productive purposes only and should not borrow, unless by doing so they can increase their profits. Limiting borrowing to the necessaries of production is one of the surest methods of avoiding extravagant expenditure and of accumulating a reserve for future needs. It is only short term credit that commercial banks are generally willing to supply, because such credits are expected to liquidate within a short duration. It is considered that, in the supply of short term credit, there is no essential difference between agricultural and industrial production. It is generally recognised in the West that agricultural paper is as self liquidating as any kind of commercial paper, the only difference being that agricultural paper takes a long time for maturing, usually about nine months. The reason is, the turnover in agriculture is much slower than in industry. Hence the period for which the agricultural paper is discounted should not exceed the length of time required to complete the operations for which the loan is made.

Peculiar Features of Indian Agriculture

The main difference between the operations in agriculture and those in industry in India is that while production in industry can be correctly gauged, that in agriculture cannot be gauged. In the West, the high mechanised farm and other improvements in agriculture have made it possible to determine the volume and quality of crops to a certain extent. The only control that man has not got over nature is the seasonal variations, the wide spread drought and floods. This factor alone is primarily responsible in the Western countries for the difference between agricultural production and industrial production. In the Indian system of agriculture "the units of production are essentially a one-man concern and the credit available for the concern is limited to the credit of one man or one family." Small scale farming renders farming more helpless than any other form of industry. The impossibility for a commercial bank of making advances to agriculture is described by the Central Banking Enquiry Committee: "effectively to finance the cultivators of a single district or even of a taluka, the resources of a commercial bank have to be dis-

tributed amongst thousands of small borrowers. To back up a banking credit his crops or live stock or dairy produce are comparatively more liquid and more easily realisable assets of the cultivator. Even these are precarious forms of security owing to the physical risks, such as floods, failure of monsoon, pestilence among livestock and so forth to which production is subject. The most honest and thrifty farmer cannot under such contingencies always pay back punctually his debt; and if agricultural credit should have beneficial effects, the creditor should postpone his demand until the effects of a devastating visitation are over or a more favourable season comes round. Again if the credit, of a substantial sum (advanced to a farmer) cannot wholly be recovered from a year's harvest without starving his other economic needs, his limited repaying capacity necessitates the recovery of the same in small driblets over a number of years, out of the margin of the profits of his farming. The rapid circulation of money being essential to the success of a commercial bank and the bulk of its working capital being derived from short-term deposits or call money, a commercial bank cannot, generally speaking, obviously afford to postpone its recoveries or tie up its resources to accommodate the farmers' needs." Hence short term agricultural credit in India is to be financed by a special institution —the Co-operative Society—which will take into consideration the peculiar nature of farming.

Intermediate and Long-term Credit

These problems cannot be handled either by the commercial banks or the Co-operative societies in India. At present in India Co-operative societies afford intermediate credit to farmers, but when they come into contact with the Reserve Bank for financial accommodation they will find that this kind of business is not suited to them. Intermediate credit is for the purpose of improving stock or the agriculturists' holding and the loans required cannot, as a rule, be repaid within the maximum period usually allowed for a short term loan which may require a period of one to three years. Special institutions for intermediate loans on the model of the Federal Farm Credit Administration are desirable.

The bulk of agricultural credit always consists of long-term loans for fixed capital which is used for redemption of debts, reclamation of land, purchase of new lands or expensive implements like pumping installations. The agriculturist cannot expect to repay these loans in

a lump at a very short period. The period of repayments is spread over a long period and the instalments are carefully fixed, taking into consideration the net income from the land and the repaying capacity of the agriculturist. America and England have well-developed institutions for this important form of credit. In India the establishment of land mortgage banks is a correct move to finance the long term requirements of agriculture.

Will facile credit alone solve the problem of the agriculturist? This leads to a further question. When will credit be facile and cheap to the agriculturist? A borrower who is capable of repaying a loan punctually, and whose creditworthiness is very high can alone expect to get credit cheaply from any credit agency. In other words, cheap and facile credit can only exist when the life of the agriculturist as a whole improves. That is mainly the reason why in the West the rate of interest to agriculturists through organized credit institutions is cheap, while in India it is high. Thus we are led into a vicious circle of cheap, and facile credit and agricultural improvement following each other. Both are of mutual causation. To bring about this improvement in the life of the agriculturist and to make him creditworthy and capable of receiving facile credit, the co-operative multi-purpose society should be started in the villages and vigorously worked. As the Committees on Agricultural Credit and Agricultural Tribunal of Investigation in England have observed "Credit alone cannot convert an unprofitable industry into a profitable one......Credit may be an important factor in the cost of production in individual cases, but it is mainly in other directions that a solution must be sought of the difficult problem of how agriculture generally can be made to pay."

Chapter 4

INDEBTEDNESS—VOLUME, DISTRIBUTION AND CAUSES

Sources of Information

It is impossible for a research student working single handed to assess precisely the volume of indebtedness. In fact, the Madras Banking Enquiry Committee and Mr. Satyanadhan, Special Officer appointed by the Government of Madras to go into the causes and volume of indebtedness and to suggest remedies, were not able to arrive at any correct figures; at best their figures were only approximate. The reason is the lack of statistics in India. In villages people are stupendously ignorant of the value of statistics. The difficulty I experienced in collecting accurate figures of the debts of the peasants (during the surveys conducted by me in some of the villages of the South Arcot District) is enough to show how ignorant and illiterate the peasant is. He is quite detached from the outside world and, if he finds a stranger enquiring into his personal affairs, he shrinks as a snail encountering an obstacle would shrink into its shell. The statistics relating to agriculture published by the Government of India and the Provincial Governments deal only with cultivation and crops, livestock and implements, vital statistics, the incidence of land revenue assessment, the harvest prices of certain important crops, the average yield of the principal crops in each province and such other economic data. But no authentic information can be had of such socio-economic problems as indebtedness, mortgage debt and fragmentation of holdings. These problems have been left purely to private bodies to enquire into. The Royal Commission on Agriculture says, "we think, however, that this is eminently a field for investigation by private agency rather than by government departments. It is very necessary, however, that private investigations should be conducted on some general plan so that the statistics compiled shall be in such a form as will permit comparisons to be made." Semi-official bodies of the type of the Punjab Board of Economic Enquiry and Universities with trained researchers assisted by government financially and otherwise should conduct economic surveys of all the villages once in three or five years and the results arrived at should be collated and published in the form of reports triennially or

quinqennially by the Director General of Commercial Intelligence and Statistics. This will save a lot of time and energy in finding out the volume of indebtedness. Moreover, where the peasants know that the collection of statistics of indebtedness has become periodical, they will get to have confidence in the investigators and will begin to give a true picture of their indebtedness.

The sources from which information and conclusions were arrived at are:—

(1) Sir Frederick Nicholson's Report on Land and Agricultural Banks in the Madras Presidency.

(2) The Madras Banking Enquiry Committee Report, the Evidence Reports and the Investigators' Report.

(3) Report on Agricultural Indebtedness—W. R. S. Satyanadhan.

(4) Economic Survey conducted by the writer in some of the villages of the South Arcot District, in May, 1938.

(5) Rural Indebtedness—An Enquiry by Dr. B. V. Narayanaswamy and V. Venkataraman.

(6) Statement of Mortgage and pronote debts registered by the Registration Department.

(7) Information gathered from the Office of the Registrar of Co-operative Societiés, Madras.

(8) The Royal Commission on Agriculture in India, 1928.

The central fact in Indian rural economy is the appalling poverty and the grinding need of the population; and the extent of indebtedness is the index of the alarming condition to which poverty has reached. It is not an exaggerated remark of the Royal Commission on Agriculture when it said, "In India agriculture is, with most cultivators, more a mode of living than a business." The average annual income of the agriculturist has been computed at Rs. 15 per head by Mr. Satyanadhan. (Even these figures are high as will be proved later on). Within this meagre income the Indian agriculturist has to find the food, clothing and sundries required for his family. In spite of his inability to pursue agriculture as a profitable business, the agriculturist will not abandon his calling out of his own free will; for the abandonment of the farm means the abandonment of the home. Forced to live a squalid life with his poor income, which has been made poorer

by the severe depression in the prices of agricultural commodities, he is groaning under a heavy load of debt which is staggering. No real progress is possible, no new policy of planned economy for the development of the country can be successfully launched, unless the agriculturists, the custodian of our national wealth, who form 71% of the population are relieved of their distress by removing the ever crushing burden of indebtedness and by devising means to increase their income and, consequently, their purchasing power.

Volume of Indebtedness: Mortgage Debts

It is necessary, therefore, to arrive at an approximate volume of indebtedness of the Presidency. Sir Frederick Nicholson, who in 1894 estimated the total indebtedness of the Presidency, arrived at a rough figure of Rs. 45 crores. Nicholson followed a curious method of estimating the total indebtedness. "If the average duration of mortgages with possession taken as one lakh, be taken as five years, and that of simple mortgages taken as two lakhs as two years, the average duration of all mortgages will be about three years." It appears that Nicholson has taken for granted that the average duration of mortgages with possession was five years and without possession two years. Nowhere he has said how he arrived at these figures. In a statement in the Appendix of the Report he has, however, shown that the average duration of simple mortgages was a little above 2·3 years and the average duration for mortgages with possession, about 6·25 years. So actually the average duration of all mortgages comes to 4·25 years. To find out the total registered mortgage debt of the Presidency, Nicholson said that the mortgage debt of the year should be multiplied by 3. Multiplying the value of mortgages (Rs. 6½ crores) by 3 he put the total mortgage debt of the Presidency at nearly 20 crores. The same method of estimating the total mortgage indebtedness was adopted by the Madras Banking Enquiry Committee. The number and value of simple and usufructuary mortgages for periods varying from one year and less to fifteen years and above were collected for six years from 1924 to 1929 from the offices of the Sub-Registrars of Srimushnam and Ellore. As shown in the table below, two figures were taken, the maximum and the minimum under each section and the number of mortgages (the average for six years) was multiplied by the minimum and maximum period in each section. Finally the average period is obtained by dividing the average of the total maximum and minimum number.

STATEMENT SHOWING THE AVERAGE DURATION OF MORTGAGES EXECUTED IN 1924 TO 1929 IN THIRTY VILLAGES INCLUDED IN THE SRIMUSHNAM SUB-REGISTRAR'S JURISDICTION.

(*Madras Banking Enquiry Committee Report, p..38*)

Nature of the deed		Up to 1 Year	1–2 Years	2–3 Years	3–4 Years	4–5 Years	5–6 Years	6–7 Years	9–10 Years	No. term	Total of columns 3–10	Average mean duration
1	2	3	4	5	6	7	8	9	10	11	12	13
Simple mortgages	Average of six years	16	16	32	5	13	1	4	5	149	92	
	Minimum number	8	16	64	15	52	5	24	45	298	229	2·95 Years
	Maximum number	16	32	96	20	65	6	28	50	447	313	
Usufructuary mortgages	Average of six years	9	14	30	5	5	1	1	..	89	65	
	Minimum number	4	14	60	15	20	5	6	..	178	124	2·37 Years
	Maximum number	9	28	90	20	25	6	7	..	267	185	

Average stated duration of all mortgages, 2·75 Years.

The one peculiar difference between the results arrived at by the Banking Enquiry Committee and by Nicholson is this. While the average duration according to Nicholson is about 2·3 years for simple mortgages and 6·25 years for mortgages with possession there is no such marked difference in the results obtained by the Madras Banking Enquiry Committee. Statistics collected from the Sub-Registrar's Office, Srimushnam show the average mean duration for simple mortgages to be 2·95 years and for usufructuary mortgages 2·37 years. In the case of Ellore the corresponding figures are 2·93 and 3·81.

Another method adopted by the Madras Banking Enquiry Committee to find out the average duration of a document is the collection of statistics from some of the offices of the Sub-Registrars regarding the supersession of mortgage documents. The conclusions arrived at are as follows :—

		No. of Documents.	Years
Nellore	..	96	357
	Average	1	3·72
Sulurpet	..	30	106
	Average	1	3·53
Ellore	..	58	219
	Average	1	3·95

The Committee have not examined the average period of mortgages which were paid off either at the time of maturity or before maturity. Renewals of documents take place only when interest falls into arrears or when a fresh loan is raised. Only a fraction of the mortgages are actually renewed while in the majority of cases the mortgages remain unredeemed for many years and end in a sale of property. So it is impossible to find out the mortgage debt during a certain period with the help of the statistics supplied by the Registration Department, for the figures for a particular year refer only to the mortgages registered in that year.

Having gone through two tests to arrive at the average duration of documents—3 years—the Committee multiply by the average period of 3 years, the amount of Rs. 20 crores, the aggregate value of mortgages, which have been accidentally constant for ten years 1919 to 1928. Statistics collected from the Registration Department from 1929 to 1938 (vide Appendix II, Tables 23 to 30) tell a different tale. There has been a continuous fall since 1929 in the aggregate value of mortgages:—

Year.		Instruments of Mortgages.	
		No.	Value.
1928	..	510,974	19,87,43,259
1929	..	485,850	19,65,66,096
1930	..	444,182	18,93,04,547
1931	..	389,487	17,69,89,913
1932	..	418,235	17,68,50,031
1933	..	388,582	15,84,35,523
1934	..	391,527	15,08,39,032
1935	..	397,699	14,72,78,474
1936	..	389,180	14,07,54,775
1937	..	409,725	13,95,23,978
1938	..	347,656	12,23,43,872

If the value of mortgages in anyone year is multiplied by 3, it will not give the total mortgages then existing in the Presidency. Moreover, the great bulk of mortgages are of unspecified terms. Mr. W. R. S. Satyanathan classified mortgages with and without possession and bonds registered, according to periods of loans taking two typical villages in each district of the Madras Presidency except Malabar and South Kanara.* In the case of mortgages without possession and bonds, the no-term loans are the most popular, and in the case of mortgages with possession the most popular term of loans is between 1 year to three years. Next comes the period of loan above three years. In the survey conducted by me in some of the villages of the Cuddalore Taluk, an opportunity was afforded to study the period of loans in the

* Vide Appendix II—Table 16.

case of 150 indebted families. (Vide Appendix II, Tables 13, 14 and 15). The conclusion arrived at is as follows:—

		Period of Loans.		
	No. of transactions	One year and below.	Above one but not more than 3 years.	Above three years.
Usufructuary Mortgages	14	2	4	8
Simple Mortgages	17	3	3	11
Bonds	55	12	13	30

So the principle enunciated both by Nicholson and the Madras Banking Enquiry Committee does not stand practical checking.

Moreover, most mortgages run for a longer period than specified in the document. So long as the mortgage amount remains unpaid, land will remain in the possession of the mortgagee. In the survey conduced in the villages of the Cuddalore Taluk the major portion of the mortgages were executed in favour of the ryot moneylender living in the villages or in the neighbouring villages. These ryot moneylenders do not show any hurry to have the mortgage terminated for various reasons, the most important being the appropriation of land from the ryot after a long period. So even if the average duration of the specific period of mortgages is three years, a correct estimate of the total mortgages cannot be arrived at by adding up the mortgages of the three previous years.

To find out the mortgage indebtedness of the Presidency, typical villages in the province should be selected and detailed enquiries in the history of the mortgages should be carried out. The results arrived at by me in a survey conducted in some of the villages of the Cuddalore Taluk, South Arcot District, can only serve as a model for others to work on this line, but cannot be considered as typical of the whole Presidency.

Unsecured Debts

Nicholson said that the bonds registered were almost nothing and concluded that the immense mass of debt on pledge and personal

credit could not be correctly ascertained. He, however, estimated that grain and non-mortgage cash debts together probably amounted to twenty-five crores. He has concluded roughly from the grain debts prevalent in Anantapur District that they should amount to Rs. 10 crores. To this he added a non-mortgage cash debt (Rs. 4 per head is the figure given in his report) of Rs. 15 crores. The total unsecured debts both grain and non-mortgage cash debts amounted to Rs. 25 crores. Adding the mofussil mortgages of 20 crores to this amount, he concluded that at the beginning of any harvest, the mofussil population was in debt to an amount of Rs. 45 crores. It must be said that the unsecured debts arrived at by Nicholson are but very rough figures.

The Madras Banking Enquiry Committee, in order to find out the existing value of bonds registered at a particular time, doubled one year's registration to represent the debts on this account outstanding at any one time. The value of bonds registered annually went up from 160 lakhs in 1919 to 3½ crores in 1928. The reason for doubling the year's registration, according to the committee, is due to the fact that fresh bonds are replaced more frequently than mortgages. On this basis, the sum of Rs. 7 crores was arrived at as the outstanding value of registered debt at any one time. The estimates arrived at on this basis are too rough.

The Banking Enquiry Committee came to the conclusion that Rs. 67 crores were the outstanding registered debt. The Investigators' Report showed that the percentage of secured debts to the total varied from 29% to 83% in the twelve villages investigated. So the Committee assumed that the secured debts should be about half of the total debt when the latter was at its maximum just before the harvest (i.e., November and December). So the total debt of the Presidency was 134 crores and if, at the rate of 12%, interest was calculated on this amount and added to the principal, the total debts in 1929 would have been Rs. 150 crores.

Another method adopted by the Banking Enquiry Committee to find out the volume of indebtedness is the calculation of the money borrowed for cultivation expenses. The general cultivation expenses for wet and dry lands were taken to be Rs. 74 crores and, as some would not borrow, the figure was adjusted with the figure of short-term loans (67 crores). But it must be noted that cultivation expenses vary from district to district and depend upon individuals who may be either hardwork-

ing or lazy. So the figures arrived at cannot be very accurate. A more accurate method of assessing the short term borrowings would have been to find out, in the 66 villages investigated by Tahsildars and the 12 villages by special investigators, the proportion of those who did not require credit for cultivation and domestic expenses and the average cultivation expenses incurred in cultivating some of the chief crops of the Presidency. On this basis alone the amount of short term borrowings should have been worked out.

Total Debt Arrived at by Actual Investigation

The only accurate method of finding out the volume of debts of the Presidency is through the investigation of typical and representative villages in the Presidency. The Madras Banking Enquiry Committee, through the Tahsildars, enquired into 66 villages and with special investigators surveyed 12 villages (three each in the Districts of East Godavary, Bellary, Madura and Coimbatore). The Committee calculated debts on three bases—Debt per head, debt per acre and debt per rupee of assessment.

Debt on Population Basis

According to the figures supplied by Tahsildars on the basis of their investigation in the months of December and January when debt was at its maximum, the average debt per head was Rs. 38. The Committee concluded that for 42 million it would give a total debt of nearly Rs. 160 crores. The Madras Banking Enquiry Committee chose the census figure of the population for 1921. But actually the population increased to 46.7 millions in 1931. Hence the total debt should be more than Rs. 175 crores. The figures arrived at by the special investigators are Rs. 61 per head and 256 crores, total.

Mr. W. R. S. Satyanathan, who enquired into 92,366 families in 141 representative villages in the year 1935, calculated the debt per head to be Rs. 38. He increased this figure by 10% thus allowing for the absentee landlords who were not enquired in the villages. But he does not say how he arrived at this 10%. So the debt per head according to Mr. Satyanathan was Rs. 42 in 1935 and the total debt was Rs. 42×48.57 million (allowance has been made for the increase in population) or Rs. 204 crores.

The survey of 150 families carried out by me in the villages of the Cuddalore Taluk has given the following results:—

Total debts of 150 families	..	Rs.	74,843
Debt per head	..	„	87·6
Debt per acre	..	„	61·6
Debt per rupee of assessment	..	„	16·9

With these figures as the basis, one cannot arrive at the total debts of the Presidency, for the results arrived at will be distorted. The reason is the figures collected represent only a particular area in the South Arcot District. Conditions may differ in the other districts.

On Acreage Basis

According to the Tahsildar's report of the Banking Enquiry Committee, debt per acre amounted to Rs. 48 and for 26,282,000 acres (ryotwari holdings) amounted to Rs. 126 crores. The Committee did not calculate the rough figure of 5 million acres held by occupancy tenants. If this figure is taken into account the total debt will amount to Rs. 144 crores. Debt per acre according to special investigators is Rs. 53 and total debt amounts to Rs. 164 crores.

Debt per acre according to Mr. Satyanathan is Rs. 63 and for the Presidency as a whole Rs. 207 crores.

On Assessment Basis

The Madras Banking Enquiry Committee arrive at Rs. 19 as the debt per rupee of assessment. The assessment on ryotwari lands and the rental on zamindari land yield a debt of Rs. 153 crores.

Debt per rupee of assessment or rent calculated by Mr. Satyanathan in 1935 is Rs. 21. The total debt on assessment basis amounts to Rs. 193 crores.

While the results calculated by the three methods on the investigations of Mr. Satyanathan almost agree, those of the Madras Banking Enquiry Committee are more divergent. The only reason that can be attributed to this difference is that the investigations of Mr. Satyanathan cover a large number of families in 141 villages, while the Madras Banking Enquiry Committee enquired into 66 villages through the Tahsildars and in 12 villages through the special investigators. The total estimated debts by Mr. Satyanathan should be taken as almost correct.

Nature of Security

Mr. Sathyanathan's enquiry in 141 villages shows that the nature of security of the debts was in the following proportion:—

Mortgage debt ..	47%	83,65,381
Unsecured debt ..	50%	89,81,796
Debt on the security of movables.	3%	5,38,489
	100	178,85,666

On the basis of the survey conducted in the Cuddalore Taluk, a statement of debts was prepared (vide Appendix II—Tables 13 to 15) for 50 families out of a total of 150 families examined. The results of the survey, if compared with the nature of security of Mr. Sathyanathan's survey, are remarkable—

Mortgage debt ..	14222	47·5%
Unsecured debts (including bonds and hand loans) ..	14218	47·5%
Debts on security of movables (mostly with saukhars) ..	1466	5%
	29906	100

For the whole Presidency mortgage debts amount to 95 crores. If the method adopted by the Banking Enquiry Committee is used in finding out the total mortgage debt outstanding in 1933 and 1938, the amount would have been 48 crores and 36 crores respectively. Though the registration of mortgages in each year may be falling owing to depression and fall in prices, indebtedness should have increased; for the agriculturist must have found himself unable to redeem his mortgages, as is evident from the survey conducted in the Cuddalore Taluk. A mortgage debt of 48 crores in 1933 and 36 crores in 1938 based on the principle enunciated by the Madras Banking Enquiry Committee is misleading. In fact, the mortgage debt in 1938 must have increased over the year 1933, because the total debt of the Presidency has increased. The statistics collected from the Registration Department (appended) is an index only of the credit available on mortgages in each year. The outstanding mortgage debts cannot be calculated. As Mr. Sathyanathan

says "It is most difficult, if not impossible, to arrive at tht proper multiple. The slightest mistake in the multiple will vitiate total mortgage debt enormously." As it is difficult to arrive at the outstanding mortgage debts from the aggregate value of mortgages in a year, so it is difficult to get a correct value of bonds and unsecured debts. While actually the unsecured debts in 1935 were 100 crores, the bonds registered during that year amounted to nearly Rs. 99 lakhs. This only shows that as in the case of mortgages, in the case of bond, also the agriculturist has not paid for a long time. According to the survey in Cuddalore Taluk the period of bonds and pronotes was found to be long enough to warrant this conclusion, and, in many cases, bonds were overdue for a long time.

Distribution of Indebtedness

Examination of 150 families in some of the villages of the Cuddalore Taluk throws light on the distribution of indebtedness on various classes of land-holders and labourers.* The registered landholders are divided into two classes—those who pay an assessment of Re. 1 to Rs. 100 and those who pay above Rs. 100. Of the 150 families, the number of labourers examined is 37, registered landholders who pay an assessment of Re. 1 but not above Rs. 100 is 100; registered landholders who pay an assessment of above Rs. 100 is 13. While the total debts of the class of 100 registered holders is Rs. 50,886, the total debt for the 13 rich landholders is Rs. 20,505. Debt per head in the former case is Rs. 90–11–4 and in the latter case it is more than double that figure—Rs. 186–6–7. Thus the average debt per head increases with assets. Viewed from this principle, the labourers who have no assets worth the name have a debt per head amounting to Rs. 18-13-10. It is only when a man is creditworthy that he is able to get credit. The larger the amount of debt that a person has, the greater is his creditworthiness. The theory that debt follows credit is proved by the figures collected.

It should not, however, be concluded that because the big registered landholder has a debt per head of Rs. 186–6–7, he is more indebted than the small landholder who has only a debt per head of Rs. 91. The burden of debt should not be estimated by the amount borrowed. To find out the indebtedness or the burden of debts of an individual, a comparison of the debts and assets should be made.

*Vide Appendix II—Tables 1 to 3.

The labourers who have no landed property are the most heavily indebted, though the debt per head may be very small compared to that of other classes of registered landholders. Enquiry in the villages shows that the labourers spend very little on their food and clothing, but spend large sums on drink and comparatively big sums on ceremonies. The wages they receive are very poor and they vary from season to season. Though almost throughout the year they get employment, in some months their wages are so small that they are not able to subsist upon them. Moreover, the families of the labourers and small holders of land are bigger than those of the rich landholders. During the survey, many cases were brought to light of the small holders of land, who, not able to subsist upon the income from their land, turn labourers. Gradually their small holdings are lost and they become pure labourers without any lands to fall back upon. While taken absolutely the position of labourers is bad, comparatively their position is not so bad as that of the small landholder.

Small and medium landholders who pay an assessment of Re. 1 to Rs. 100 are the hardest hit of the agricultural classes. Very small land holders who pay an assessment of Re. 1 to Rs. 10, mostly work on their own fields and engage themselves for work in other fields. It is only the small and medium landholders paying, Rs. 10 to Rs. 100, who are in a very bad position. In fact, these small landholders form the bulk of the population. They live on the land and till the soil. Of course, the debt per head in the case of these small holders is lower than the debt per head of the big landholder. But they own only 526¾ acres and the debt per acre is Rs. 96–9–8 and the debt per rupee of assessment is Rs. 29-12-7 (total assessment paid is Rs. 1,708-4-0). These figures are far higher than those of the big landholders. In fact, debt per acre and per rupee of assessment show the real position of the peasants. These small holders are proud people and they will not deign to work as labourers. In the villages of the South Arcot District they are living almost in a deficit economy. The crop expenses along with assessment leave little for them for domestic expenses. Consequently, they not only borrow for their domestic expenses but fall into arrears in the payment of interest and principal of the debts contracted already. Prices have fallen phenomenally owing to depression and though there is a slight recovery in recent years (vide Appendix II, table 58), they are far below the 1929 level. No wonder then the small landholders are forced to part with their lands to the big absentee landlords, who happen

to be moneylenders also. The total number of acres which changed hands in two typical villages in each district, excepting Malabar and South Kanara, is 5125 in 1930 and 6,669 in 1933 and 5,994 in 1934.* The net area mortgaged by agriculturists to non-agriculturists has fallen. The reason may be partly due to the shrinkage of credit and partly to the increase of land sales. The following tables regarding sales and mortgages prepared from Mr. Sathyanathan's report are instructive—

(Collected from enquiry into two typical villages in each district except Malabar and South Kanara).

Years		Total changed hands	Net area sold by agriculturists to non-agriculturists	Net area mortgaged by agriculturists to non-agriculturists
		acs.	acs.	acs.
1930	..	5,125	772	3,343
1931	..	5,540	1,368	2,644
1932	..	5,729	917	2,605
1933	..	6,669	1,406	2,553
1934	..	5,994	1,081	2,297

Referring to the indebtedness of small landholders, the Kurnool Resettlement Report of 1935 says "Lands are being sold to meet these debts, and landed property is tending as perhaps never before in this district to accumulate in the hands of big moneylending ryots or of the merchants. Small ryots became tenant holders." Mr. Sathyanathan has shown how the number of pattadars paying Rs. 100 and less has actually fallen by 32,67,537 between faslis 1335 and 1340.† This tendency of the lands to change hands should be immediately checked.

The big landholders who pay an assessment of above Rs. 100 are also badly hit by the economic depression, though the burden of indebtedness is not so heavy as on the small and medium holders. Thirteen such families examined in the villages of Cuddalore Taluk have a total

*From Mr. Satyanathan's Report.
†Vide Appendix II—Table 17.

debt of Rs. 20,505 and debt per head is Rs. 186–6–7, but debt per acre and per rupee of assessment is Rs. 29-8-3 and Rs. 7-8-4 respectively. Most of these rich landlords who were examined by the writer happened to be moneylenders also. The richest landholder in the hamlet of Nellikuppam (Ellayappanpattai) regularly lent money to almost all the families that were indebted and on enquiry it was found that most of the lands he acquired were from those poor families in lieu of the debts they incurred. He was not in a hurry to get the money from the poor landholders, but allowed it to grow with interest till at last lands passed into his hands. That big land-holder had practically no debts. But another big landholder examined in Kottavancheri was indebted very much. The reason is extravagant living and fall in income from the land as a result of depression.

Mr. Satyanathan enquired into 564 typical families throughout the Presidency to find out the burden of indebtedness and he has arrived at the same conclusions as those of the writer.* Their landed property, consisting of 12,663 acres of wet land, 16,486 acres of dry land and 108 acres of garden, was worth Rs. 157 lakhs before the depression. The value of those lands, when he enquired (1934), was Rs. 69 lakhs. The total indebtedness of the families was Rs. 14 lakhs. Thus while debt formed only 9% of the value of land before the depression, it was 20% in 1934. The burden of debts has almost doubled. But there has been a general, though not appreciable, recovery in the wholesale prices of important commodities since 1934 (vide Appendix II—Wholesale Prices Table).

The Agencies of Credit

The whole borrowing has been chiefly from three different kinds of creditors. The nature of indebtedness studied in the villages (vide Appendix II—Tables 13 to 15) reveals that 89% of the borrowings were from ryot moneylenders, Saukhars and peasants, 10·3% of the borrowings from co-operative societies (there was one loan from a Land Mortgage Bank) and 7% from Government. Mr. Sathyanathan's figures for the 141 villages surveyed are as follows:—

93% Moneylenders and others.
6% Co-operative societies.
1% Government.

*Vide Appendix II—Table 7.

Causes of Indebtedness

The indebtedness of the ryot is not peculiar to India. Even the English farmer, who, perhaps in the whole world, owns sufficient capital and who has the advantage of renting land largely developed by the capital employed by his landlord, is obliged to borrow freely from the banker whether for advances at seed time or for purchase of manure, etc. Conditions are so different in India that every historian assures us that at no time was the Indian agriculturist free from debt. In the autonomous village of former times the village panchayat devised ways and means to prevent the accumulation of debts and alienation of property. The principle of 'Damdupat' prevented the moneylenders from demanding exorbitant rates of interest from debtors. But before the advent of the British, there was no centralised administrative Government and as the country was torn by political strife and as the proprietary right of land was not firmly established, the moneylender was not prepared to lend freely to the agriculturist. When a centralised government was established by the British, and law and order were maintained the autonomous village administration fell into desuetude and with it came good as well as evils. In the first place, it is primarily responsible for the decay of the village life. The customs and manners that kept down debts and made life in the villages happy disappeared. The cry is now, as never before, to make the village autonomous in administration. The Minister for Revenue, Government of Madras, has gone about drawing fascinating pictures of an autonomous village administration. But the advent of the British gave to the agriculturist a secure tenure in his land and this greatly enhanced the credit, not only of the ryots but also of the Indian Zamindars, by raising the value of land. Land, which was formerly considered an encumbrance, became a valuable asset on which it became easy to raise credit. Rights in land came to be defined and recorded and there was growth of transferable rights in land. Commerce and trade developed rapidly and the establishment of a hierarchy of permanent civil courts and the enactment of new measures—the Contract Act and the Civil Procedure Code—strengthened the position of the moneylenders and gave them power to attach the cattle and implements of the debtors and even to get them arrested and imprisoned for non-payment of debts. So serious became the bother of the moneylenders that various measures were instituted recently to protect the agricultural debtors. Added to this, the growth of mortgages on the passing of the Registration of Documents Act (1864) and the Transfer of Property

Act (1882) enabled claims on various persons to be recorded systematically. The agriculturist could sell or mortgage his lands and the law courts respected these transactions. The rise of prices which was rapid after 1854 created great optimism in the agriculturists who borrowed and were steeped in indebtedness. During the last forty years, which saw a steady rise of commodity prices and land values, indebtedness was steadily on the increase. The total annual value of mortgages which was 6½ crores when Nicholson enquired into the indebtedness in 1891 rose to 7.75 crores in 1900 and to 14.79 crores in 1914. During the years of war, value of mortgages slowly increased and between 1920 to 1928 the average was Rs. 20 crores. Since 1929 when prices fell rapidly mortgages also fell. During the depression there were hardly any new mortgages. Only the old ones were renewed.

Having traced the historical growth of indebtedness, it is necessary to go into its causes. Enquiring into the condition of the Kumbi royts, the Deccan Riots Commission of 1875 came to the conclusion that the causes of indebtedness were as follows:—

1. Poverty with unproductive soil, precarious climate and irregularity of income.
2. Ignorance and Improvidence.
3. Extravagance.
4. Ancestral debt.
5. Expansion of credit.
6. Increase of population without corresponding increase of return from land.
7. Facilities for borrowing owing to influx of moneylenders.
8. The Limitation Law as leading to renewals on usurious terms, including compound interest.
9. The Revenue System of a fixed demand.

To these causes may be attributed the state of indebtedness in the Madras Presidency also.

Insufficient Income

The Indian Agriculturist is very poor—so poor that he is not able to maintain himself. His poverty is mainly due to low income which is irregular. The Madras Banking Enquiry Committee, after assessing

the quantity and value of crops in the Madras Presidency, had come to the conclusion that the gross value of crops should be Rs. 165 crores. The prices of food crops fell between 1928-29 to 1933–34 by about 50% and though there was an increase after that period it was not very appreciable. The price of commercial crops, such as groundnut and cotton, fell by 40 and 60% respectively in 1933–34; but there was an increase of nearly 20% in the price of groundnut. On the whole, it may be taken that the fall of prices is still nearly 50% of 1928–29 level. So the gross value of the crops of the Madras Presidency is Rs. 80 crores. Both the census of 1921 and 1931 conclude that 71% of the population was dependent on agriculture. The increase of population in the decade ending 1931 is 4·7 millions over 1921. Allowing the same increase in population for the decade ending 1941, the population of the Presidency for 1939 should be roughly 50 millions. For a rural population of 35 millions the gross income (taking only the value of crops) is a little more than Rs. 22–12–0. But to find out the net income of the agriculturist, the cost of cultivation, land revenue and interest payments should be subtracted from the gross income. The Banking Enquiry Committee says that cultivation expenses take nearly half the crop. Mr. Sathyanathan says "The cultivation expenses may roughly be taken at 40% of the yield, though I am perhaps estimating cultivation expenses at too low a figure." Elsewhere I have calculated the cultivation expenses for a few families in the village of the Cuddalore Taluk.* The expenses for 1 acre dry where groundnut is raised comes to Rs. 20 to Rs. 25; for one acre wet when paddy is raised, it is Rs. 40 to Rs. 45. But generally many ryots do not ordinarily spend so much on their lands. For they cannot afford to spend so much money because of the fall in prices of agricultural commodities. Consequently the yield from land also goes down. With a lower yield per acre and fall in prices, the net income from one acre of land is almost next to nothing. To continue Mr. Sathyanathan's argument, instead of allowing 40% for crop expenses, we may safely deduct 50% of the value of the crops for crop expenses. If we deduct the total assessment (land revenue plus rent paid to Zamindars) of Rs. 8 crores, the net income of the agricultural population will be Rs. 32 crores. The agriculturist can avoid paying interest on debts incurred. But he cannot escape paying land revenue and spending on raising crops. So net income per head of the rural population in 1937–38 is

*See Appendix II—Table 62.

t

Rs. 9-2-3. This net income of Rs. 9-2–3 does not include income from subsidiary occupation. Even allowing Rs. 2 to 3 for subsidiary occupation the net income of the peasant cannot be placed above Rs. 12 per annum. The Central Banking Enquiry Committee arrived at Rs. 42 or about £3 a year as the average income of the agriculturist. The Simon Commission of 1929 said "....the average income of India per head in 1922 was equivalent, at the prevailing rate of exchange, to less than £8, while the corresponding figure for Great Britain was £95. The contrast remains startling even after allowing for the difference between the range of needs to be satisfied." The divergence between the average general income of an Indian and the average income of an agriculturist in the Madras Presidency is remarkable. It is needless to comment on the poor standard of living which leads to debts in the Madras Presidency. Thus the root cause of debt is the insufficiency of income.

Vicissitudes of Season

Poor as his income is, the Indian agriculturist is exposed to the vicissitudes of season which have a very detrimental effect on his income. The total area under all irrigated crops in 1937–38 was 10,898,480 acres representing 29·5 per cent of the total area under all crops.* Only 40·1 per cent of the total area of the Presidency was brought under cultivation. The land in regions which depend on monsoon for water supply will be very much affected by the changes in monsoon. As Mr. Darling observes "the monsoon may fail, or what is more likely near the hills, the rain may come at the wrong time; or a river may rise and sweep away harvest, hamlet and herd." While Government canals irrigate a greater proportion of the total irrigated area, tanks and wells irrigate 36·5 per cent and 15·5 respectively, of the total irrigated area. During the survey conducted in the Cuddalore Taluk, I came across many minor tanks which were almost flat and almost dry at a time when water was expected in the tanks. Repairs by the Minor Irrigation Department leave much to be desired. Hence tanks, except for a few in the South Arcot District, are of little use to the agriculturists. Lands under the irrigation of these tanks have, more or less, to depend on rain. Mr. Sathyanathan says that the return from invest-

*Economic resources of the Province of Madras and possibilities of their development—by L. B. Green, Director of Industries and Commerce, Madras.

ments on agriculture, as regards the staple food crops, is low, averaging from 2 to 5% in normal year with average prices. But normal years are not very common in India. According to Mr. Darling a cycle of five years will give one good year, one bad year and two normal years. But the economic depression has resulted in a series of bad years. While in the good year, the small agriculturist is able to get out of cultivation without incurring any loan, in bad and normal years he borrows. From the income in a good season, he will not be in a position to repay the money he borrowed during bad seasons. Hence, debt accumulates.

Crop Pests and Diseases

Insufficiency of income may be traced to the damages caused to crops by pests and diseases. During my stay in some of the villages, summer groundnuts were sown. But a red hairy caterpillar (Amsacta albistriga) infested the fields. There were millions of them covering the poor agriculturists' crops. Even in the streets a number of those caterpillars were seen. The only method of destroying these caterpillars according to the Agricultural Department is to pick them up and destroy them. But how can a poor agriculturist afford to employ a number of men to pick those numerous caterpillars and destroy them? Hence, when once the pests attack the groundnuts the agriculturist loses his crop. There is another pest called 'Surul poochi' in Tamil (Stomopteryx nerteria). The damage to groundnuts by these moths was great. The attack was fairly wide-spread and serious during the year I went to those villages. There is a kind of pest known as 'rice bugs' and they are a menace to paddy. In Anantapur where these bugs are common, they can devastate big area of cultivation. Mr. Sathyanathan, an eye-witness to the damages done by these locusts in Anantapur, says "The locusts suddenly appeared in millions. I thought we were caught in a great storm. Shortly afterwards, the ground was covered with a carpet of these insects 6″ deep." The suggestion of the Agricultural Department to ward off these insects is to procure a big net to cover the fields and net the insects. The suggestion is indeed brainy. In addition to these pests, wild elephants in Coimbatore and South Kanara, wild pigs, bison and rats (rats more than any animals do a lot of damage) are also responsible for the destruction of crops. Besides the considerable risks due to monsoon, the poor cultivator has to face great risks from crop pests and wild animals.

Inefficiency of Cattle

Inefficient production is due, to a certain extent, to the poor breed of cattle. In the course of my survey I came across a number of villagers who owned plough bulls, cart bulls, cows, buffaloes, goats and sheep. I give below a statement of livestock in the case of 50 families out of 150 examined:—

Number of Livestock in 50 Families in the Village of Nellikuppam, Kottavancheri and Vazhapalam

	No. of animals	No. of families owning the animals	No. of acres ploughed
Plough bulls ..	128	32	465
Cart bulls ..	32	14	..
Cows, calves, buffaloes and oxen ..	241	37	..
Goats and sheep ..	95	11	..
Families with no animals ..	..	10	..

The number of livestock in the Madras Presidency as ascertained by a census held in 1935 is given in Appendix II—Table 35. Efficiency is not a noticeable characteristic of the cattle in the villages surveyed. Enquiry in the villages reveals that one pair of bulls can plough 4 acres and the agriculturist need not engage any hired ploughs. But the number of animals used for ploughing the total cultivated area of the Presidency is 9,434,182. These animals can plough only 18,868,364 acres. But the extent of land brought under cultivation is 32,031,639 acres. So a pair of bulls is expected to plough double the number of acres ordinarily ploughed by a pair. Examining the figures collected in the villages of the Cuddalore Taluk, it may be noted that 64 pairs of plough bulls plough an area of 465 acres or nearly double of what is expected of a pair. While the bulls are overworked, they are underfed. The result is that the inefficiency of cattle leads to inefficient production. Writing on fragmentation of holdings, Professor Radhakamal Mukerjee said "If the process (extreme fragmentation) continued, women in Gorakhpur might be compelled (as in Shantung in China) to draw the plough." The same situation may happen in

the Madras Presidency if those stunted animals, which are incapable of doing any hard work, breed indiscriminately and fall an easy prey to disease, are not carefully looked after and improved. The Royal Commission on Agriculture say "the process having gone so far, India having acquired so large a cattle population and the size of the animals in so many tracts having fallen so low, the task of reversing the process of deterioration and of improving the livestock of this country is now a gigantic one; but, on improvement in its cattle depends to a degree that is little understood, the prosperity of its agriculture and the task must be faced." The farmer's mainstay is his cattle. If he loses them, he has to replace them by new ones. For that purpose many families in the villages I surveyed incurred heavy debts. In fact, most of the taccavi loans and loans from Co-operative societies are for the purchase of bulls for ploughing or for carts. Cattle mortality from natural causes is great, but mortality from contagious diseases has slowly decreased from 158,523 in 1923-30 to 31,774 in 1933-34.*

Inefficient Methods of Production

Large tracts of cultivable land are now lying fallow in the districts of Tinnevelly, Trichinopoly, Salem, South Arcot, Chingleput, Nellore, Bellary and Cuddapah. But even the present area of cultivable land is not intensively cultivated; nor is it possible to do so with the inefficient instruments of production. Mr. Darling observes "The plough that looks like a half-open penknife and just scratches the soil, the hand-sickle made more for a child than a man; the old fashioned winnowing tray that woos the wind to sift the grain from the chaff; and the rude chopper with its waste folder, are undisplaced from their primitive but immemorial functions." The above observation is a correct description of the primitive tools used. The wooden ploughs used number 4,293,812 and the iron ploughs 44,879. In spite of the demonstrations and exhibitions carried on by the Agricultural Department, the iron ploughs have not become popular. The reason is the bulls are not strong enough to draw the iron ploughs. The agriculturists are not rich enough to buy strong and efficient bulls. It is curious to find the Agricultural demonstrator going into the villages with his iron plough, grown rusty from want of use for a long time and preaching to the agriculturists how the iron plough is preferable to wooden ploughs, how chemical manures are superior to ordinary manure

*Vide Appendix II—Table.

and kindred topics. The villagers surround him and give him a patient hearing and when the demonstrator finishes his discourse, the agriculturist goes on his own crude way of cultivation ignoring the teaching of the agricultural demonstrator. It must be the endeavour of the Agricultural Department to see that better methods of cultivation are adopted in the villages. The cultivator, who has become very lethargic and is content with things as they are, should be roused from his lethargy if production is to be improved.

Fragmentation of Holdings

One of the serious handicaps in the way of improving production by better facilities or irrigation, better seeds, manures and implements is the sub-division and fragmentation of holdings. What is needed is an economic holding. Mr. Keatinge, in describing an economic holding, observes, "It is a holding which allows a man a chance of producing sufficient to support himself and his family in reasonable comfort, after paying his necessary expenses." The cause of fragmentation is the sub-division of holdings, which is principally the result of the Hindu law of inheritance. According to the law "Everything is divided,—shares, holdings, plots, tenants' houses, groves, ponds and even trees. And where there is no formal partition there is always an informal one." The effect of sub-division is enhanced by the indebtedness of the ryots and forced sales of the inherited lands. Dr. Slater found that the agricultural holdings of the Madras Presidency had, to a large extent, been reduced to a condition in which their effective cultivation was impossible. Fragmentation of holding is the manner in which the holding is held. In my survey, I found the lands of many farmers extremely fragmented. To take only two or three typical cases in the hamlet of Nellikuppam, a villager owning 5 acres of dry and 7½ acres wet land had his land fragmented in ten pieces. The smallest piece was 1|16 acre or 0·06 acre and the biggest ·75 acre; another peasant who owned 3 acres of dry land and ½ acre of wet land had his land distributed in fifteen places and the longest distance between one piece and another was more than half-a-mile; a third villager who owned 1 acre of wet land and 3½ acres of dry land had eight pieces of land, the smallest fragment being ·125 acre; yet another landholder owning 4¼ acres of dry land and ¾ acre of wet land had his lands distributed in fifteen places, the longest distance between two plots being ¾ mile. Most of the landholders had their lands fractionalised. It is a clear index of the havoc wrought by

indebtedness and the usurious moneylenders. *Mr. Sathyanathan who has collected figures of sub-division of holdings in the Chingleput Taluk has found that 12,349·79 acres of wet holdings consisted of 31,879 fields including sub-divisions, while the average of the sub-divisions and whole fields was 39 cents. Small holdings restrain the farmer from adopting more improved methods of cultivation and prevent him from taking to intensive farming. Moreover, these undersized holdings are in debt and when a cultivator has a big mill-stone of indebtedness round his neck, he can hardly hope to adopt improved methods of agriculture. So fragmentation and sub-division of holdings are the basic causes of debt.

The Increase of Population

The growth of population, without a corresponding increase in the acreage under cultivation, increases the burden of indebtedness. Between 1921 to 1931, while population increased by 10·4%, the net area sown rose by only 1·5% and holdings by 5·7%. Average holdings per head of population fell from 62 cents to 59 cents. The average must be still lower now, if the growth of population this decade is the same as 1921-31. In the thickly populated areas of Europe meagreness of area is made up by intensive cultivation and efficient production. The Madras peasant is unable to adopt any of those methods for reasons narrated in the previous paragraphs.

Unproductive Expenditure

The purpose of borrowing, as seen from my examination of 150 families in the villages of the Cuddalore Taluk, is as follows :—

		Per cent
Ancestral debts	..	47·6
Agricultural expenses	..	9·5
Buying land	..	7·0
Domestic expenses	..	5·7
Marriage and social functions	..	12·0
Trade	..	4·4
Other purposes including payment of land revenue	..	13·8

*Vide Appendix II—Table 34.

Unproductive expenditure consists of ancestral debts, marriages and social functions, relief of distress, faction and litigation, taxes paid and domestic expenses. Roughly, unproductive expenditure forms 79·1% of the total debts.* This feature is really very peculiar to India. In the United States and other advanced countries of the West the major portion of farmers' borrowings are for productive purposes and only a very small percentage is for family expenses. In India the amount spent on productive purposes is very low. According to my survey, the sum spent on buying of lands, agricultural operations and trade amounts to 20·9% of the total debts. All debt is not an evil. It is always good to borrow for productive expenditure. But the sum spent on unproductive expenditure is great in the Madras Presidency and no return can be expected of such an expenditure.

The general complaint is that the Indian agriculturist is improvident and extravagant. Though it is true that the agriculturist spends large sums on marriages and social ceremonies, yet they do not form a big proportion of an individual's debts. Enquiries in the villages show that the villagers were not ruined by occasional borrowings for the purpose of marriages. It is only in the case of very rich classes that marriages mean huge debts. Marriages and social functions account for 12% of the total debts incurred by the peasants in the villages of the Cuddalore Taluk.

According to Mr. Sathyanathan, litigation, local politics and faction are the causes of extravagant spending by agriculturists. In the villages surveyed by me rivalries between parties were not common, though in one case there was a competition between two parties to get their men installed as the village munsiff. Of course, some expenses were incurred by the two parties on that account. The most litigious and factious villages of the Presidency are in Tanjore, Tinnevelly and Guntur. Villagers in these districts are found to spend large sums on filing of suits in civil and criminal courts, on paying fees to lawyers and bribes to witnesses and subordinate officers in courts and on court fees. The villager in a factious village is an obstinate person who will pursue his case by appealing to the highest tribunal in the land. As Mr. Sathyanathan says, "Faction and litigation are the chief forms of amusement the villager has. The game of local politics is also absorbing to him

*Vide Appendix II—Table 6.

......It is considered fair play to down the enemy even in these courts of justice and communal grazing grounds."

According to the survey in the villages, borrowing for domestic expenses amount to 7%. These borrowings are not the result of a rise in the standard of living. In fact, there has been a fall in the standard of living of the agriculturists owing to the economic depression. Borrowings for domestic expenses are the index of the extreme poverty of the peasant.

Land Revenue

To a certain extent, the incidence of land revenue influences indebtedness. As the payment of land revenue is fixed in money, it involves great hardship during a period of fall in prices when the value of money falls. The half net theory of the Government according to one writer has become the 'all net theory'. Though the land tax proper was not enhanced during the period of settlement, there was an appreciable increase in the water-rates and other miscellaneous items of land revenue. But if we compare the figures for 1881 with the figures for recent years, the increase of land tax is remarkable. The total land revenue of the Ryotwari area of the Madras Presidency was Rs. 36,644,152* excluding cesses in the year 1881; but it was increased to Rs. 67,443,085, excluding cesses, in 1933-34. This increase may be due partly to more lands being brought under cultivation. In the Zamindaris the condition of the tenants is very bad. The dictated Land-rent policy is 33% of the gross produce on dry lands and 40% of the gross produce on wet lands. This may not leave anything to the ryots after cultivation expenses are met. In a survey conducted by the South Indian Estates and Landowner's Economic Council to assess the burden of taxation in the Pithapuram Zamindari, it was found that in some lankas (islands in Godavari) the rates of rent collected were very high. Ordinarily the rates of rent varied from Rs. 5 to Rs. 18 and sometimes to Rs. 30 in the case of wet lands. In the case of dry lands the rates varied from Rs. 5 to Rs. 10. The Zamindar never grants the lanka lands on pattas but puts to auction the right to cultivate the land for one or two years. Professor N. G. Ranga, who conducted an economic survey of the Zamindari has come to the conclusion that the rents on

*Madras Manual of Administration, Vol. 2, page 397.

the lankas rose to such unbelievable heights of Rs. 150 per acre per annum during 1932–33 and Rs. 300 to 400 a few years before. When the price of tobacco cultivated in the Lankas fell, most of the ryots sustained serious loss and were consequently in arrears in the payment of rents due from them. "For instance, one village Mulakallanka which had to pay Rs. 27,000 in 1932–33 towards the rents on these lankas, is in arrears to an extent of Rs. 40,000. The Government whose rents for its lankas are not even half as much as those of the Zamindar, granted remissions in 1932–33 to the extent of Rs. 80,000 in the neighbourhood of that village whereas the Zamindar had refused to give any remission." Pithapuram Zamindari is but one example of rack renting by the Zamindar. There are worse cases of rack renting in some other Zamindaris. On the whole, the indebtedness of the ryots in the Zamindari is to a large extent due to the heavy rates of rent exacted from them. Enquiry in 150 families in the villages has revealed that out of a total debt of Rs. 74,403, a sum of Rs. 35,381 (47·6%) represents ancestral debts. This is a very heavy burden on the agriculturist. When a ryot borrows especially in a bad season, he is not able to repay the debts during the normal seasons or even in good seasons. In the villages I surveyed, and in the Madras Presidency as a whole, the lenders of money to agriculturists are generally the ryot moneylenders. Of course, there are professional moneylenders, like Marwaris and the Chetti banking community. While the rates charged by the Marwaris vary from 18 to 50%, the rates charged by the ryot moneylenders vary from 9 to 24%. Secured debts usually carry 12% and unsecured debts from 8 to 24%. During my investigations I found that the sowcars of Kurinjipady who supplied the villagers with money, usually charged 6 pies for a rupee for a month or 37½%, but 9 pies for a rupee for a month or 56¼% was not uncommon. It is only the usurious rates of moneylenders that have swelled the volume of debts. Loans are generally given on pronotes, on personal security or joint security and on the mortgage of landed property. In my enquiries in the villages, there came up many cases of pronote debts, which were originally for short periods of a year or two with no fixed terms. They were renewed after three years with the addition to the principal of the interest and penal interest that remained unpaid. When several renewals of pronotes take place the debt swells many times its original proportion, and ends by being converted into a mortgage debt. Mortgage debts last for many years and finally the creditor forecloses and takes possession of the lands of the poor ryots. The moneylender is an avaricious person gene-

rally and does not keep accounts. The borrower believes all that the creditor says to him regarding the payment of interest. Generally, the moneylender dupes the poor agriculturist of the interest he pays and does not record the payments made. Gradually interest goes on accumulating in spite of the payments made by the agriculturist and at last the load of ancestral debt is so great that he is forced to part with his lands to the moneylenders.

Middlemen and Lack of Marketing Facilities

There is a close connection between the indebtedness of the ryot and the marketing. In many cases the trader or the middleman happens to be the moneylender and as soon as the produce is harvested, it is sold to the creditor as originally arranged. In some cases advances are made to ryots by agents of exporting firms (e.g. Rally Brothers) for the selling of produce at a certain price to them and the poor agriculturist loses a good price for his produce. Moreover, during my survey, I was informed of the atrocities committed by the 'mandi' owners, who are middlemen. Groundnut selling by the ryots to the middlemen is very common in Cuddalore Taluk. The 'mandi' owner actually forces the ryot to part with his groundnut at a ridiculously low price. In addition, he makes various deductions towards commissions and dupes the ryots by false balance and measures. No wonder then that the poor agriculturist who gets a very meagre return from land, when duped by the middlemen, gets a very low money income for his produce.

Lack of Subsidiary Occupation

Another important factor which contributes to the extreme economic weakness of the Indian agriculturist is the inadequacy of subsidiary occupations which supplement his poor income from land. While for six months the peasant finds work on his field, he wastes his time for another six months doing practically nothing. Supplementary occupation is unknown to South Indian peasants. Of the several villages I surveyed, in one hamlet (Andikuppam) only the peasants engaged themselves in a kind of rough mat weaving out of kora grass. They sold the mats in the weekly shandi and realised a few annas which went a long way to add to their main income from agriculture. In other villages no subsidiary occupation was known. In Japan a very large proportion of peasants (including women) engage themselves in subsidiary occupations like toy-making, rearing of silk-worm, etc., and earn a substantial income.

Economic Depression

Before the onset of the depression there was a boom in the prices of commodities, e.g., in South Arcot District a maund of groundnut was selling at a price of Rs. 80. Hence the agriculturist spent liberally and borrowed at heavy rates of interests to buy land. He was not able to speculate as the trained business-man would. Slowly the prices of crop began to fall and the agriculturist was unable to repay what he borrowed. The value of land declined steeply and he was forced to part with a large portion of his lands for his debts. He was constrained to borrow for his cultivation expenses and domestic expenses and he resorted to the sowcars and the middlemen. Enquiries in the villages revealed that almost all the families lost a large number of jewels by pledging them with the sowcars. The result is jewels worth any value are rarely found in the families of these villagers.

Effects of Indebtedness

The evil effects of debts in the economic, social and moral spheres are great. As already pointed out, debt leads to agricultural inefficiency. The feeling that he has to sow for others to reap damps the ardour even of the most enthusiastic. The result is that debts and inefficient production of agriculture go in a vicious circle. Orderly and profitable marketing is greatly affected by debts. A more pathetic effect of indebtedness is the constant change of ownership of lands. It has been found that a large proportion of lands which change hands go to non-agriculturists or are mortgaged with them. The result is that tenant farming, which is noted for inefficiency and absentee landlordism increases. The census reports of 1921 and 1931 show that landless agriculturists have increased in India in recent times. In 1921 for every 1000 cultivators, the number of farmservants was 291. The proportion increased to 407 for 1000 cultivators in 1931. Mr. Sathyanathan's enquiries in 141 villages have revealed that for 80,999 pattadars (registered landholders) 30,749 were farm-servants.* Another result of indebtedness is the coming into being of the indenture labour system or the 'Panniyal' system as it is called in Madras. When a labourer borrows a small sum from a landlord, he binds himself to work for the lender, receiving a bare subsistence wage. The agreement entered into

*Report on Agricultural Indebtedness—W. R. Sathyanathan, page 38.

is that the labourer should work for the landlord until he repays the debts. During the investigations in the villages of the Cuddalore Taluk, I came across those panniyals who were little better than serfs. For generations they were bound to their masters and there was little hope of their liberation.

An important class of society, engaged in the noble profession of raising the foodstuffs for the nation, is steeped in debt with little hope of recovery. It will be a danger to society if the agriculturists break down under an intolerable burden. Different measures have been passed to protect the agriculturist in India and in foreign countries. A study of some of the most important measures to protect debtors is necessary and interesting before we take up the question of agencies who supply credit to the agriculturists.

Chapter 5

MEASURES FOR SCALING DOWN DEBTS WITH SPECIAL REFERENCE TO THE MADRAS AGRICULTURISTS' RELIEF ACT—1938*

Introduction.

In the previous chapter we found how the agriculturist is suffering from an intolerable burden of debts. The money income of the agriculturist fell appreciably as a result of the economic depression. The prosperity of the entire nation is dependent upon the well being of the agriculturist. It is a danger to society if the agriculturist, who is engaged in the noble profession of raising the foodstuffs of the nation, breaks down under an intolerable burden. The need for scaling down debts is therefore great.

Passive attempts were made to redeem the agriculturist by the passing of several legislative measures such as the Land Improvement and the Agriculturists' Loans Acts, the Co-operative Societies Act, the Land Mortgage Bank Act, the Insolvency Act, the Usurious Loans Act, an Act for the Protection of Debtors and the Agriculturists' Loans Amendment Act of 1935. These various legislative measures will be discussed in the relevant places in the thesis. Suffice it to say here that these measures did not attempt to scale down debts. They either attempted to bring down the rate of interest or supply more credit facilities. Before these measures are put through, the heavy indebtedness under which the agriculturist is suffering should be reduced or wiped out as the case may be.

Conciliation or Compulsion?

If relief is to be given to the agriculturists by scaling down debts, is it by compulsion or by mutual agreement that debts are to be scaled down? It is said that arbitrary scaling down of debts by the state will lead to a great curtailment of credit and that only if voluntary conciliation fails, compulsion should be tried as a last resort. Though the effect of

* See 'The Madras Agriculturists' Relief Act—A Study. By Dr. B. V. Narayanaswamy Naidu.

compulsory legislation in frightening away credit cannot be minimised, the economic depression itself has impeded credit. Such measures should be looked upon as an attempt to solve a deadlock and if they are successful they will not only be beneficial to the debtor but also to the creditor. The Prime Minister, Mr. Rajagopalachariar believes that voluntary conciliation will be of no avail in our Presidency; for the creditors will never come to terms with the debtors. Moreover, almost every agricultural country in the world has found it necessary during the depression to adopt some compulsory measure of this kind. The Debt Conciliation Act of 1936 has not been scraped out of the Statute Book. Unlike in Central Provinces it is retained to set in motion the Agriculturists' Relief Act. The Debt Conciliation Act and its working will be described after a discussion of the compulsory scaling down of debts.

Legislation in Foreign Countries and in India.

A study of the various attempts made to solve the problem of the indebtedness of the rural population in other countries and in our own will be necessary and useful in giving a proper perspective for the discussion of the relief measures in Madras. It has been contended that "the nature of the debt of the South Indian peasant and the conditions of South Indian rural economy are very different from those of the Western Countries" and that the time and circumstances under which those measures were adopted also differ from ours. Though much of the debt of the central European farmers was contracted for the re-construction of farms devastated by the war, one cannot be blind to the enormous suffering of the agriculturists due to the catastrophic fall in agricultural prices after the depression, the heavy interest charges and the increased cost of production which was the result of improvements in farming effected at a time when market conditions were favourable. The result was the farmer was working on a deficit economy. In Greece, the average income per family was 19,398 drachmas and the average expenditure considered to be indispensable, 25,055 drachmas. The condition was similar in most of the European countries. In India poverty has been the chief cause of indebtedness and the agriculturist was paralysed by the economic depression. But whatever may be the general or specific causes of indebtedness it is a well known fact that excessive indebtedness is a common evil. It is injurious at the same time to debtors and creditors and its effects are felt by the whole community. So a study

of the measures adopted to eradicate this evil in foreign countries will be profitable.

The different measures adopted in foreign countries may be divided into three categories. Certain countries of Central and Eastern Europe adopted radical measures which aimed directly at relieving the farmers from debts. These measures partook of the nature of compulsory conversion of farmer's debts, reduction of the rate of interest and, in certain cases, of the principal also by the imposition of law. The second type of legislation pursued a policy of direct intervention but confined itself to narrower limits. This type of legislation is characterised by the repayment of loans by instalments over a series of years, the suspension of the measures of distraint against debtors, repayment by the State of part of the debts and the imposition of minimum prices for the sale of expropriated property. The last type of measures seeks to help the debtors through indirect means by the provision of cheap credit facilities and through measures adopted with a view to raising the prices of principal crops and improving agriculture.

In Germany, as a result of the crisis, numerous legislative measures were rendered necessary between 1931-32. The floating debts of the needy farmers were replaced by a special loan granted by the Bank for German Industrial Securities. The funds were drawn from the levies imposed on the industries while the Reich guaranteed 25% of the loan granted. Orders were also issued offering protection against distraint by creditors. Where voluntary agreement failed, creditors and debtors were subject to legal process which remitted arrears of interest, reduced interest for the future and even made possible compulsory reduction of principal by 50%. In addition to these, and some other measures of the National Socialist Government, there was a proposal for raising to a remunerative level, the prices of agricultural products which in part, had remained appreciably below the cost of production.

In Italy, by a law of 1930 the extinction of onerous agricultural debt was facilitated by a conversion of short term loans into long term loans payable in 25 years. The State undertook to pay a part of the instalments. Where there are scientific improvements in farming, the Minister can grant contributions not exceeding 3½% interest repayable in twenty-five years. Mortgage credit institutions were called upon to replace bonds bearing more than 4% interest by bonds bearing interest at 4%.

In Switzerland the Government found it necessary to develop a Peasants' Aid Bank, which would give help to the distressed farmers in the form of loans with or without interest and subsidies towards interest; to develop protective measures of a legal nature taken in favour of distressed farmers by the suspension of the repayment of capital, reduction of the rate of interest on secured loans, reduction or suppression of interest on capital sums not secured and extinction of interest due in certain cases; and to prevent new indebtedness by a bill aimed at reducing mortgage debts to a tolerable amount, i.e., to enable the farmer to have a subsistence income for him and his family. In the adjustment of debt proceedings the debtor, creditor and the community would collaborate. While the community would subscribe a certain amount for some years to a fund, the creditor would renounce a part of his credit. The creditor would be bought out by a redemption bond. The Federal Council would have control over the farms and would limit indebtedness in future.

Measures adopted in Denmark, Norway and Sweden were more or less similar to those in Switzerland. But in Finland short term loans were converted into long term loans and the land mortgage bank was reorganized. The State not only guaranteed the bonds but subsidised them. Loans were granted up to 90% of the value of the farm. If the farm was forcibly sold in auction it was bought by the bank and restored to the original owner in case he was found fit to assume responsibility. The French legislation was characterised by postponement of repayment to the various classes of debtors.

By a law of 1934 debts of the agriculturists of Bulgaria were reduced by 40%. The difference resulting from the reduction of debts was made up out of an amortization fund formed at the Public Debt Office to which the State assigned the proceeds of the tax on vocations and the supplementary tax on total income. The limit of exemption of property for distraint of debts was increased. Some other features of the Bulgarian legislation are the spreading of the instalments of repayment over longer periods, postponement of repayment from 2 to 15 years and reduction of the rate of interest. Greece declared a moratorium for agricultural debts in 1930 and followed, to a large measure, the legislation in Bulgaria.

Certain debtors in Hungary who got their debts inscribed in the land register of their country were protected from the sale of their property for three months. The State contributed a sum towards the

payment of interest on debts of those persons. The legal rate of interest was fixed at 5½%. An amortization fund was set up for the reduction of debts of certain farmers.

Arrears due to the treasury and other public bodies in Poland were reduced in 1932 on condition of the payment of current taxes within a certain period. Long term debts to credit institutions were converted and were repayable in 55 years at a reduced rate of 4½%. Long term debts due to private individuals need not be repaid for a certain period and the rate of interest was also reduced. Short term debts both to credit institutions and private individuals were converted. In the matter of repayment of instalments and in the reduction of the rate of interest greater concession was always shown to small land-holders than to big land-holders.

While Rumania and Czechoslovakia followed up the main principles of the Swiss legislation in the reduction of capital and interest, they supplemented those measures with a policy for the reorganization of production at a cost that would leave a margin of profit to the agriculturists. For then only could reduced debt be paid back in future. In Rumania agricultural centres were established and furnished with modern technical equipment for every branch of production with a view to increasing the yield of land. The course of foreign commerce was regulated to find extended markets for Rumanian agricutural products and to increase the price of cereals. Czechoslovakia prevented speculation in the commodity exchanges of grain by fixing the price of cereals.

Legislation pertaining to moratorium and amendment of civil laws to prevent sale of lands of debtors by auction are characteristic of the measures adopted in Yugoslavia and Latvia. In these two countries and in Estonia and Lithunia provision was made for the conversion of short term loans to individuals, co-operative societies and private banks, into long term loans. Land Mortgage Banks in certain cases and State Agricultural Banks in others were established to take over these reduced debts of farmers. Rate of interest on mortgage loans was reduced considerably.

Only voluntary conciliatory methods in the reduction of debts were adopted in Japan. Associations were formed for that purpose in villages. Passive conciliatory machinery was established in Canada by a law of 1934 to enable farmers, over burdened with debts but not

desperate, to remain on their farms. Farm Loan Laws were amended to increase the total amounts that could be lent by the Dominion Farm Loan Board and to raise the sum that could be advanced to any borrower from 50% of the value of security to 60%.

The agricultural credit policy of the United States of America was entrusted to the Farm Credit Administration, whose aim was to create a system of completely unified credit institutions on a permanent basis, to supply credit to farmers and their organizations at the lowest cost and to facilitate the adjustment of the heavy burden of mortgage debts by emergency financing and reduction of the rates of interest. Debt adjustment Courts would go into each case to decide the deserving farmers. To enable the farmers to make voluntary arrangements with their creditors, the Credit Act allowed a flotation the proceeds of which could be utilised for the purpose.

It must be noted that when drastic measures are adopted in most countries it is only to give adequate relief to small holders. Ordinary law and the conciliatory machinery give relief to big landowners. Measures which are popular are those which respect contractual obligations. Where radical measures are adopted credit unduly contracts and public opinion strongly reacts rendering necessary the adoption of new measures to calm the people. But, in spite of popular agitation, various countries have adopted radical measures because they must have found out the futility of conciliation and mediation in the case of small holders.

In the Indian Provinces excluding Madras much attention is being paid to the question of tenancy legislation. In Bihar, Orissa, the United Provinces and Bombay, bills have been introduced in the legislatures to relieve the tenants from the oppression of Zemindars chiefly for arrears of rent and debts and to enforce their occupancy rights on lands. Regulation of money lending has been attempted with full or partial success in the Punjab, Bombay, Bengal, Orissa and some other Provinces. Debt conciliation boards have been formed in the Central Provinces, Bengal and Bombay. Acts to prevent land alienation were passed in other provinces.

After the passage of the Madras Agriculturists' Relief Act, bills have been introduced for compulsory scaling down of debts in Central Provinces and Bombay. The new bill in the Central Provinces proposes to scrap the machinery of Debt Conciliation Boards and provide Debt Relief Courts. A system of graded relief, based on the estimated

fall in the value of land, is being introduced in the Bill. The payment of interest is limited to 4½% compound interest with yearly rests or 6% simple interest on secured loans and 9% on unsecured loans. Debts due to co-operative societies and certain banks and rent debts have been excluded from the scope of the Bill. In Bombay a Bill has been introduced in the legislature by which compulsory scaling down of debts, according to capacity to pay as ascertained by Debt Adjustment Boards appointed by the Government, has been provided. The Boards are to work under civil courts which are empowered to hear appeals in specified cases. Interest is to be not more than 6% on debts contracted before January 1939 and not more than 9% on subsequent debts. Those who are entitled for the relief are those agriculturists whose principal amount of debts secured by property is not more than Rs. 15,000 and not less than Rs. 100. In the case of debtors whose assets are inadequate to pay the scaled down debts, they can be declared insolvent by the Board. The Debt Adjustment Board has power to order sale of a debtor's property in liquidation of his debts, if such a procedure is in his interest.

In the Bhavanagar State a Commission was appointed to assess the causes and the volume of indebtedness. On the basis of its report the Durbar, by a debt redemption scheme, sought to liquidate the past debts of agriculturists by advancing loans to each individual ryot at easy rates of interest. The awards of the Debt Liquidation Committee are binding on the sowcars and the ryots. It is interesting to note that, while the nominal indebtedness in the sowcar's books was Rs. 86,38,874, the amount that was actually paid in composition was Rs. 20,59,473. The reason for this successful liquidation is the immediate cash payment by the State to the sowcars. For the liquidation scheme to be effective and permanent, the system of village panchayats was introduced by which the villagers took on themselves the management of their own affairs and were made responsible for the development of the economic welfare of the ryot. In Hyderabad, the Land Alienation Act has been made more stringent; and registration of moneylenders was enforced to prevent usury. Debt conciliation boards established for the benefit of a certain class of agriculturists were based on voluntary efforts with a small element of coercion for effective working. Further, there are proposals to start land mortgage banks and to provide the bankrupt debtors with a rural insolvency Act.

From the Moratorium to the Debt Relief Act.

Madras is the pioneer in the field of introducing compulsory legislation for the scaling down of debts.

The first measure of the Congress Government was a Moratorium Bill published in the middle of September, 1937. The Bill was intended to give temporary relief to indebted agriculturists till comprehensive measures were formulated for dealing with indebtedness. Both the period of the Moratorium and its applicability were restricted. The Bill laid down that for a year no suits or proceedings could be instituted against agriculturists whose liabilities under the heads of land revenue, rent and taxes and liabilities to local authorities did not exceed Rs. 400; who had saleable interests in lands; and who derived ¾ of their income from lands. The sums due to Provincial and Central Governments, to co-operative societies, joint stock banks and land mortgage banks were excluded from the operation of the Bill. It was made clear that agriculturists should not be entitled to transfer any immovable property so as to defeat the rights of their creditors.

Though substantial measures of relief were to follow the Moratorium, there was great opposition to it. It was said that moratorium was a desperate remedy to which Governments resorted when their banking systems were threatened with crash by a war or other serious calamity. But in the West, such moratory legislation is common. In the Co-operative Conference a resolution was passed that the Moratorium Bill that was introduced in the legislature should be either ancillary to the Agriculturist's Relief Bill or should be immediately followed by such a bill. In the latter case, the interval should not be more than three months. But in Greece a moratorium for five years was declared and one year was not too long a period. It was contended that the definition of 'agriculturists' worked great hardship in the case of certain deserving agriculturists, whose income from land was not ¾ of their total income. A fear was expressed that there would be a shrinkage of credit for seasonal agricultural operations. But such complaints were always made against all radical measures.

Great agitation against the Moratorium forced the Government to drop the idea and to publish in the beginning of December, 1937 the Debt Relief Bill. This Bill is simple and quite different from the Debt Relief Act that has actually come to stay on the Statute Book.

The object of the Bill is to rehabilitate agriculture, the basic industry of the Province, by relieving the producers of food from the incubus of indebtedness. The main principle of the Bill is that all arrears of interest outstanding on the 1st October, 1937, shall automatically stand cancelled, in the case of all debts incurred by the classes of debtors defined as agriculturists. Where simple interest has been charged at more than 9% or compound interest charged or provision made for penal interest, the debt shall be deemed to be discharged in full if the total sum paid to the creditor, whether for interest or principal, amounts to twice the amount of the principal of the loan. If the amount paid till 1st October, 1937, falls short of twice the principal, such amount as will make up this shortage or the principal amount alone, whichever is less, will be paid to the creditor.

For the purposes of the Bill an agriculturist is one who has a saleable interest in land under the ryotwari or other tenure or a lessee of such lands. The Moratorium Bill did not include the lessees within the scope of agriculturists. Unlike the Moratorium Bill, no upper limit of income from land is fixed in this Bill to qualify an agriculturist for the benefits conferred on him by this measure, though such limits are fixed for landholders under the Estates' Land Act and the Malabar Tenancy Act. Those who pay income-tax or profession tax of more than a rupee a year or property or house tax exceeding Rs. 600 a year are excluded from the operations of the Bill. These provisions are intended to ensure that persons following occupations other than agriculture do not benefit by the Bill. The Bill exempts the debts due to Governments, Local Bodies, Co-operative Societies and Joint Stock Banks with a membership of more than 500 share-holders. The rate of interest on all future loans is 6%.

Arrears of rent payable in areas under the Estates' Land Act and the Malabar Tenancy Act except arrears of the last two faslis shall be wiped out according to the Bill. But the tenant must pay within 15 months of the passing of the Act arrears of the last two faslis in full. Otherwise the old arrears will be deemed to be discharged only proportionately to the extent rents discharged for faslis 1346 and 1347.

The provisions of the Bill can be applied to decreed debts. Where a decree is in execution, it can be stayed till it is again demanded. Sales of movable or immovable property of the agriculturists can be set aside if such sales are made in execution of a decree after 1st October, 1937.

The amount in excess of the scaled down amount received by the decree-holder as a result of the sale shall be refunded to the debtor.

The Bill was referred to a Select Committee on the 21st of December. The most fundamental changes made in the Bill by the Select Committee are those regarding interest clauses. The Committee has made a distinction between the pre-depression period and the post depression period i.e., debts incurred before 1st October 1932 when the value of money was less than now and those incurred after that date when the value of money increased owing to a fall in prices. The provisions regarding the wiping out of interest were retained in the case of pre-depression debts, while for debts incurred between 1st October, 1932 and 1st October 1937, the rate of interest was fixed at 5%. Where a debt after 1st October, 1932 was found to be a renewal of a debt incurred prior to that date, the debt or any part of it renewed will be dealt with as a debt incurred prior to 1932. Thus the principle of damdupat has been retained for pre-depression debts.

The payment of the rent for fasli 1347 before 30th September, 1938, was made a condition precedent to the grant of relief to a tenant from arrears of old rent. The rent for fasli 1346 must be paid before 30th September, 1939, if the tenants want a full discharge in respect of all arrears of rent accrued for previous years.

Minor changes have been effected in the definition of agriculturists. Women who own no property but who have lent out sums less than Rs. 3,000 are exempt from the Bill. Personal belongings of a woman, viz., jewels and household furniture should not be taken into consideration when computing the value of the property. Wages due to agricultural and rural labourers were exempted. A mortgagee in possession of the property mortgaged not taking any interest is exempted from the Bill.

For the sake of easy calculation the Committee has changed the rate of interest from 6% to 6¼% or 1 pie for a rupee for a month.

Before the Bill was passed into an Act the Government made certain amendments in the Bill and this has resulted in two important changes in the Bill. Where once creditor companies with 500 shareholders and more were exempted, this concession was now limited to scheduled banks of the Reserve Bank provided the interest charged by

them was within 9%. In the case of post depression debts past payments in excess of 5% shall be appropriated only to arrears of interest while formerly reduction of principal also was possible.

The Upper Limit.

The main object of the Act is to rehabilitate agriculture, the basic industry of the Province, and not so much to give relief to individual agriculturists. It is true that the land is the source from which the food for the people and the raw materials for the factories are produced. It is argued that as the prosperity of other sections of the people is dependent upon the agriculturist and his land, agriculture as an occupation is sought to be relieved from indebtedness. The Premier said that it was intended to relieve the industry of agriculture by lightening the burden on land. The burden is actually felt by the man and some ryots feel the burden while others do not. By the occupation test relief will be distributed indiscriminately to both big and small land-holders, to those who need relief and those who do not. A study of foreign legislation will reveal that radical measures were adopted only to save the small holders while the big owners of land availed themselves of the voluntary agreements and other ordinary laws of the land. Even from the occupational test, which pays more attention to the impersonal than to the personal aspects involved, the denial of relief to Jenmies, Zamindars and Inamdars who pay above a certain sum to the Government is not based on correct principles of economics. From this standpoint, there is no case for excluding produce-sharing tenants and labourers. In the Tanjore district and other southern parts of the Presidency there are a large number of absentee landlords who lease out their lands and spend their time in the town. While this class of landowners is relieved, there is no justification for excluding Zamindars and Inamdars. To avoid this anamoly an upper limit is essential.

Where are we to draw the line between the big and the small landowners? An investigation by Mr. Sathiyanathan, into 564 families throughout the Presidency has given the following results.

	No. of families	Extent of holdings and lands taken on lease	Assessment paid	Total Debt	Debt per head	Debt per Re. of assessment	Debt per acre	Debt per family
		Acs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Farm labourers owning no lands and paying no assessment or rent ..	23	..	..	1,739	15	..	..	76
2. Registered landholders and tenants paying land revenue of Re. 1 to Rs. 100 ..	306	4,483·03	11,143–8	3,23,438	211	72	29	1,057
3. Registered landholders and tenants paying land revenue or rent of Rs. 100 & above ..	235	24,738·0	1,35,453–4	10,79,186	918	44	8	4,592

Similar results have been arrived at by an investigation conducted by us in some of the villages of the Cuddalore Taluk. Figures given below are only for 50 families in two hamlets of Ellayappenpettai, Cuddalore Taluk.*

	No. of families	No. of members	Assessment	Holdings	Total Debt	Debt per family.	Debt per head	Debt per acre	Debt per Re. of assessment
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Farm labourers owning no lands	9	62	..	..	932	103–9	15	..	..
2. Registered landholders paying a land revenue between Re. 1 to Rs. 100.	38	223	473	170	16,322	430–0	73	96	35
3. Registered landholders paying a land revenue above Rs. 100 ..	3	20	395	99½	1,900	633–0	95	19	5

*Figures calculated from the Survey conducted in Cuddalore Taluk by Dr. B. V. Narayanaswamy Naidu and P. Vaidyanathan in June, 1938.

The burden of debt should not be determined merely by a reference to the amount borrowed; for a man with a larger amount of debt may not feel the burden so much as a man with a smaller amount. For the one may be rich while the other poor. The burden of debt is, therefore, to be judged by a comparison of indebtedness to assets. Judged from this standard, both Mr. Sathyanathan's figures and the figures collected in our survey lead us to the same conclusion that the most hard hit are the small and medium land-holders paying a land revenue between Re. 1 and Rs. 100. While debt per acre and per rupee of assessment of this class according to our survey is Rs. 96 and Rs. 35 respectively, for those paying a land revenue of Rs. 100 and above the corresponding figures are only Rs. 19 and Rs. 5. But if we take into consideration debt per head, they give a false idea of the position. In fact, the position is reversed. Debt per head for those paying a land revenue of above Rs. 100 is 95, while for those who pay land revenue between Re. 1 and 100 is Rs. 73. So the unwary are liable to be misled. A perusal of the table from Mr. Sathyanathan's report will convince one of the correctness of this conclusion. The small and medium land owning class (paying land revenue between Re. 1 and Rs. 100), who form the largest number of the rural population, have settled on land and are the actual tillers of the soil. It is they who really feel the actual burden of indebtedness. It will not be an exaggeration if we call them the backbone of our agricultural industry. If they are freed, the industry itself will get great relief. When it is said that relief should be given to this class of agriculturists, it does not mean that the big holders are not suffering. They too are badly hit, though not as badly as the small holders. Debt conciliation boards and land mortgage banks are the proper machinery through which they should get relief. The upper limit for this radical measure should be limited to those who pay an assessment of land revenue to Government not exceeding Rs. 100.

Exclusion of Labourers

It is an imperative necessity that the debts of farm labourers should be scaled down. Though their position is not apparently so grave as can be seen from the tables given above, yet even the small debt per head cannot be repaid by them. A special provision should be introduced for wiping off their debts supplementing such a measure by exempting movables, *i.e.*, the materials used in husbandry in addition to dwelling houses, livestock and the minimum produce for subsistence. While there is a case for inclusion of arrears of rent in this Act, the debts of

labourers might have also been included. The Premier promised to introduce a separate measure for the purpose at the earliest opportunity.

Sanctity of Contract

Too much emphasis has been placed on the sanctity of contract. It is said that any legislation that destroys this sense of sanctity of contract destroys the roots of social life. But it is an important fact that justice is the basis of contract and in the relation between debtors and creditors, where an unconscionable rate is charged by the debtor, the sacredness of the contract vanishes into thin air. The debtors and creditors have never been on equal terms and all the Governments of the World have in one way or another violated this principle. The various relief measures in many foreign countries are examples of the violation of contracts. Even in India the rate of interest was always regulated and laws were passed to enable courts to reopen old transactions. The Deccan Relief Act in many ways transgressed this principle of contracts. The return from agriculture varies from 2 to 5%. To borrow for that industry at a rate ranging from 6% to 50% is very bad economy indeed. If violation of the contract is unjust, the usurious rate of interest is criminal and suicidal. A revision of contract with every change in the volume of money is necessary. Even nations were obliged to violate contracts entered into when, owing to various economic causes, they were unable to respect such obligations. What is true of nations is true of individuals also. After all, men are responsible for these contracts and when these contracts threaten the economic position of the individuals, it is but right that these contracts should be abrogated. So there is a justificaion for the Debt Relief Act.

The Post and Pre-depression Debts

Not only the most contentious but the most important clauses in the Act are clauses 8 and 9, which provide for the compulsory scaling down of debts and wiping out of arrears of interest. Before proceeding to discuss the provisions it is necessary to see what kind of debts compose the major portion of the indebtedness of the agriculturists. In discussing the causes of indebtedness it has been proved conclusively that ancestral debts form the highest percentage of the volume of debts as compared with other debts. (vide figures given from the survey of the villages in the Cuddalore Taluk p. 67). Statistics given below regarding the purpose of borrowing from three different sources will corroborate the truth that ancestral debts are the heaviest burden on the agriculturists

and will also support the account given from an investigation in the Cuddalore Taluk.

TAMARAIPATTI VILLAGE—MADURA TALUK*

Debts classified according to purposes	*Rs.*
Cultivation Expenses ..	4,950
Purchase of Bulls ..	7,010
Purchase of lands ..	8,825
Improvement to lands ..	1,100
Discharging prior debts ..	37,225
Building new houses ..	11,100
Family expenses ..	11,810
Litigation expenses ..	1,000
Trade ..	2,000
Purchase of a motor car ..	2,500
Payment of kist or lease amount ..	1,110

SIVAPURI AND GAVARAPET VILLAGES—CHIDAMBARAM TALUK**

Purposes of borrowing	Amount	Percentage
Maintenance ..	4,925	11·16
Purchase of lands ..	9,900	22·43
Agricultural Improvements ..	2,960	6·71
Purchase of cattle ..	460	1·04
Land revenue ..	690	1·56
Liquidation of old debts ..	10,450	23·68
Marriage and funeral ..	3,705	8·04
Education ..	2,700	6·12
Interest payments ..	850	1·93
Medical ..	169	0·39
Current interest due ..	6,025	12·65
Miscellaneous ..	1,295	2·93

* The Madras Provincial Banking Enquiry Committee Investigators' Report.

** *The Problem of Rural Indebtedness*—Dr. B. V. Narayanaswamy Naidu and Mr. V. Venkataraman.

RESULTS OF 141 SELECTED VILLAGES IN THE MADRAS PRESIDENCY *

Purposes of borrowing		Amount.	Percent.
		Rs.	
Marriage and other ceremonies	..	18,80,761	10·5
Payment of prior debts	..	44,85,400	25·1
Land Revenue	..	5,84,173	3·3
Relief of distress	..	10,88,377	6·1
Agricultural expenses	..	17,87,457	10·0
Improvements to land	..	7,88,709	4·4
Education of children	..	2,47,337	1·4
Trade	..	23,01,937	12·9
Purchase of land	..	24,74,715	13·8
Construction of houses	..	10,08,416	5·6
Other expenses	..	12,38,384	6·9
Total	..	178,85,666	100

The following table prepared from Mr. Sathyanathan's Report gives an idea of the number of cases in which lands were sold or money was borrowed for different purposes. The figures are for the years 1930-34 taking two typical villages for each district of the Presidency except South Kanara and Malabar.

* *Report on Agricultural Indebtedness*—W. R. S. Sathianathan.

Year.		Agricultural purposes.	Trade	Kist.	Marriage expenses	Discharging of old debts.	Other purposes	Purposes not ascertainable.
1930:	Sales ..	72,705	21,413	5,424	24,743	10,67,453	1,38,475	2,35,274
	Borrowings ..	66,575	46,802	2,656	33,042	8,25,425	1,60,630	1,20,169
1931:	Sales ..	22,742	5,314	1,380	10,109	13,84,426	70,306	2,09,252
	Borrowings ..	31,406	66,182	1,577	17,934	8,85,695	85,592	80,659
1932:	Sales ..	43,941	16,046	5,091	11,966	15,29,892	92,063	1,95,002
	Borrowings ..	46,831	38,798	1,115	32,988	7,64,965	96,878	2,02,530
1933:	Sales ..	46,290	17,662	8,803	11,940	13,54,389	61,546	1,94,726
	Borrowings ..	29,064	27,231	3,049	24,492	6,40,839	1,32,634	69,166
1934:	Sales ..	33,218	11,473	3,539	22,805	1,15,236	72,816	1,79,168
	Borrowings ..	70,664	27,934	975	27,667	6,36,660	75,099	55,483

The number of sales and the number of cases in which money was borrowed by mortgaging property or through promissory notes are disproportionately large in the discharging of old debts when compared with other purposes of borrowing. Extreme pains are taken to show that ancestral debts form the largest proportion; for, then only there is a justification for Clauses 8 and 9.

In the scaling down of debts the Act draws a line at 1st October, 1932 to divide pre-depression from post-depression debts. It is often asked, what is the sanctity of the date 1st October, 1932? There is every justification for fixing that date as the dividing line. The following index numbers of wholesale prices in the Madras Presidency will clarify the point.*

Year.	Rice	Groundnut.	Cotton.
1928-29 ..	100	100	100
1929-30 ..	90	85	85
1930-31 ..	72	55	62
1931-32 ..	60	63	56
1932-33 ..	56	59	57
1933-34 ..	48	39	58
1934-35 ..	56	57	63
1935-36 ..	59	58	62
1936-37 ..	56	62	60

The effect of the depression began to be felt in 1931. It reached its lowest point in 1934-35. As the effect of a pricefall is not immediately felt the year 1932 may safely be taken as the dividing line of pre-depression from post-depression debts.

But the principle adopted in the scaling down of debts is the principle of 'damdupat' which says that when a creditor receives twice

* Dr. P. J. Thomas, *Hindu*, January 28, 1938.

the amount of principal by way of principal or interest towards debts contracted before 1st October, 1932, the whole of the debt will be deemed to be discharged. Thus the principle of 'damdupat' which is intended to be applied in the case of usurious rates of interest is wrongly applied to slump in prices. If scaling down of debts is to be related to fall in prices alone, a ratio between prices and debts should be established and on this basis debts should be scaled down. This has been the principle in some foreign countries. But in Madras it has been proved conclusively that ancestral debts with usurious rates of interest are the heaviest burden on the agriculturists. If this burden is to be removed, the principle of 'damdupat' should be correctly applied.

The second class of debts—the post depression debts—are dealt with differently. In the case of these debts past payments in excess of 5% interest shall go to cover only arrears of interest and not principal though the Select Committee recommended that it should cover the principal also. Here again, it is difficult to relate the reduction of interest to any principle. It has no relation either to changes in the price level or capacity to pay. Moreover, the rate of interest for all future debts is 6¼% and as prices are gently rising there is no justification for a lower rate of interest fixed for post-depression debts.

The scaling down of debts on the basis of slump in prices can be justified if the scaling down were to be followed by immediate discharge of the debts. But in the absence of any such facilities, debtors will be put to great hardship. For creditors may wait for a rise in prices or they may press for immediate settlement of debts by taking over the lands of debtors. This can, to a certain extent, be mitigated, if provisions are made to transfer lands to creditors at the pre-slump prices and to exempt a minimum holding in the case of agriculturists who cultivate their own lands.

But as there are many difficulties in the way of scaling down debts in relation to fall in prices, and as conditions in Madras are favourable mainly for the application of the principle of 'damdupat', it will be right to revert to the principle of scaling down embodied in the original bill. It may be laid down that all debts contracted before 1st October, 1937, and which carry more than 5% interest simple or compound shall be scaled down on the basis of the principle of 'damdupat.' For all debts contracted after that date and for all future debts the rate of interest shall be 5% and not 6¼% as is laid down in the Act. The Government should

have power to change the rate of interest whenever very bad seasons occur. The merit of this principle is that a large amount of old debts will be wiped out and the agriculturist will be very much relieved.

Future Interest

The power of the Provincial Government to change the rate of interest from time to time is viewed with suspicion. It is feared that it would introduce an element of uncertainty in credit. The principle that a Central Bank or a Reserve Bank should regulate the bank rate and the rates of the money market is correct. The Government should not interfere in the regulation of such rates. But this principle can be applied in India only to organized credit institutions. The money-lenders in the villages who have no connection with the money market and who have no knowledge of the principle of the money market continue to charge usurious rates of interest. Their rates of interest are not affected either by the rate in the money market or by fall or rise in prices but only by the personal character of the man. Such usurious rates can be regulated only by executive fiat and the Act rightly allows the Government to fix the rate from time to time.

Arrears of Rent

These form the third class of debts that are scaled down by certain clauses in the Act. Relief that will be given to the tenant will not be immediate because the prompt payment of rent for fasli 1347 and 1346 before 30th September, 1939 is a condition for wiping out of arrears of previous faslis. It is curious that while the same principle for the prompt payment of scaled down debts is not adopted in the case of ryotwari landowners, such a principle is applied to the poor tenants on the ground that if arrears were wiped out unconditionally, current and future rents would not be easily realized. Moreover, this provision is not related either to fall in prices or capacity to pay. A recalcitrant tenant who can pay his old arrears will refuse to pay them when once he pays the dues for faslis 1346 and 1347 within the due date. A poor tenant who has not the capacity to pay the rent for the two faslis (1346 and 1347) is pressed hard for his old arrears. Thus great hardship is caused to poor tenants by this clause.

Co-operative Societies and Joint Stock Banks

The exclusion of the Co-operative Societies is a right move on the part of the Government. Co-operative Societies are associations of borrowers themselves and their object is the advancement of the members and not the earning of usurious rates of interest by exploiting the borrowers. But in the case of credit by money lenders the interests of lender and borrower are in a manner opposed and the special interests of these men are the exploitation of borrowers for the sake of private gain. If only the Act had included the Co-operative Societies, it would have defeated its own purpose. Moreover, the recent policy of the Co-operative Department is the introduction of controlled credit in the societies in order to improve the repaying capacity of the agriculturists. The inclusion of these societies will result in a set back to agriculture. The Registrar of Co-operative Societies has already issued a circular to all co-operative institutions that in respect of D-class societies no member shall be asked to pay more than double the principal originally borrowed by him; no member shall pay more than the principal plus interest calculated at 6¼% from the date of the disbursement of loan; and that 25% of the amount outstanding now may be remitted. Simple interest at 6¼% is charged on awards by arbitrators on outstanding loans. But the Registrar's proposals are not mandatory and some central banks and co-operative societies have not given effect to his suggestions. The matter can be set right if the Registrar or the Provincial or the Central Bank enforces these proposals on the societies.

While there was a great agitation for excluding joint stock banks with less than 500 share-holders from the Bill, the Government amendment limiting the exemption only to scheduled banks was a great shock to many banks and individuals. A large number of funds, nidhis and small banks are relegated to the same position as the private money-lenders are. In the finance needed to raise crops, these institutions form an important link in the chain of rural credit. If institutional credit is to be preserved, these institutions should be exempted. To prevent a few big money lenders forming themselves into joint stock banks a limit may be placed on the number of share-holders. But that limit should not be so high as 500. The provision that past payments in the case of post-depression debts will be appropriated only to interest, has to a certain extent mitigated the serious wrong done to these institutions.

Some Minor Criticisms

A beneficial feature of the Act is that some women who live solely on a small amount within Rs. 3,000 lent out, are exempted from the provisions of the Act. Orphans and infirm men are in the same position as these women are and they should also be exempted. The Act does not touch usufructuary mortgages. It is but just that when a person enjoys the property for twenty years for the sums he has lent out, the mortgagor should get back his property and the whole amount should be deemed to have been discharged. In the tenancy legislation of some provinces, provision is made more or less on the above lines for the discharging of arrears. The Zamindar will be in possession of the lands of the occupancy tenant for some years in lieu of the arrears of rent. After that period, lands will be returned to the tenant and the arrears will be wiped out. No provision has been made to save the debtor from being sold up. As has been already pointed out, a minimum holding should be exempted from being attached and a schedule of prices should be prepared at which alone lands could be sold. The Act has no provision to afford relief to the large number of insolvents. The present law of insolvency is so hopelessly complicated and expensive that few agriculturists can take advantage of it to avoid harassments. Provision should be made in the Act for a certain minimum of produce or lands for the subsistence of the insolvent debtor and his family.

Future Credit.

The first effect of the Act will be a drastic curtailment of credit and the seasonal agricultural operations will suffer through the drying up of credit. During the survey of some of the villages in the Cuddalore Taluk, it has been found that a good number of agriculturists have left their lands fallow on account of their inability to get credit. Conversation with the village folk of Ellayappanpettai has revealed that the society in Kurinjipady under whose jurisdiction they came was very shy to lend them. The collection of kist became very difficult in the villages. A sowcar in Kurinjipady said that business became very slack after the Debt Relief Act. Even the sowcar thinks twice before he lends out. The Revenue Inspector of Kurinjipady received as many as 15 applications for taccavi loans during the course of 15 days in the month of May. This is a very uncommon feature ordinarily. An inspection of the taccavi loan ledger in the Chidambaram Taluk Office clarifies certain doubts.

TACCAVI LOANS GRANTED BY THE REVENUE DEPARTMENT IN THE CHIDAMBARAM TALUK

Fasli or year.	Applications received.	Number sanctioned	Number rejected
1344 (1934-35) ..	9	4	5
1345 (1935-36) ..	3	1	2
1346 (1936-37) ..	8	2	6
1347 (1937-38) ..	10	Under consideration 1	9
1348 (1938-39) from 3-7-1938 to 20-9-38 ..	15	3 under consideration	12

Chidambaram being a wet area, taccavi loans are not popular. In spite of it the number of applications received for only two months after the passing of the Debt relief Act is nearly double the number of applications received in previous years. We are not concerned here with the rejection of the number of applications or the amount sanctioned. The large number of rejection may be attributed to the inherent defect of the Land Improvement and Agriculturists' Loans Act and the administrative difficulties felt by the subordinate officers. We are interested only to show that due to the shrinkage of credit supplied by money lenders there has been a rush even to the unpopular taccavi loans.

An inspection of the loan ledger of the Chidambaram Loan and Paddy Sales Society supplements this evidence—

Village Centres		Amount of loans granted 1937 (January to December)	Amount of loans granted 1938 (Jan. to November).
		Rs. A. P.	Rs. A. P.
1. Kattumannarkoil	..	740 0 0	2,795 0 0
2. Vilakam	..	3,330 0 0	7,620 0 0
3. C. Sathamangalam	..	1,150 0 0	1,960 0 0
4. Orathur	..	1,610 0 0	5,419 0 0
5. Maduranthakanallur	..	3,599 0 0	6,077 0 0
6. Maiyathur	..	1,895 0 0	2,802 0 0
7. Naivasal	..	2,662 8 0	1,854 0 0
8. Lakshmigudi	..	4,378 0 0	4,560 0 0
9. Keelnedumbur	..	3,507 0 0	4,347 12 0
10. M. Odayur	..	5,548 0 0	7,523 0 0
11. Suravilandur	..	6,474 0 0	3,875 0 0
Total	..	34,893 8 0	48,832 12 0
11. New centres started in 1938	..		20,199 0 0
Grand Total		34,893 8 0	69,031 12 0

This feverish increase in the amount of loans advanced cannot be attributed merely to the expansion of the activities of the Society. If it had not been for the Debt Relief Act, the amount of loans advanced this year would not have doubled. From the figures derived from this Society it cannot be generalised that there is a great turnover of business in the Co-operative Societies. In fact, examination of some of the societies in the Cuddalore Taluk gives a contrary result.

Facts have proved that there is a shrinkage of credit supplied by money lenders. The question arises whether it is beneficial to the agriculturists. To a certain extent shrinkage of credit will do some good to the improvident agriculturists. But when the co-operative societies and other small banks restrict their credit, then the agriculturists will be at a loss to find money for the seasonal needs of agriculture. To that extent the repercussions of a shrinkage of credit are detrimental to agricultural production. So it is the duty of the Government to rectify the Co-operative movement and consolidate their position in order to enable them to meet the increased demands on their resources.

It is often said that the funds of moneylenders would not be kept idle but would soon find an outlet. Those who are eager to invest will invest their funds in fixed capital in urban areas. Investment in banks, especially at a time when there are bank failures, will not be popular. Many illiterate ryot moneylenders will begin to hoard or buy lands. When the investor becomes a burnt cat, it will take a long time for him to recoup and one cannot expect the money lender to lend easily to the agriculturist in the near future. In many cases the poor agriculturist who is in dire need of credit will conspire with the money lenders to evade the law. Investigation in some of the villages has brought to light cases where the professional money lenders execute pronotes with statutory rate of interest but pay the agriculturists only half the sum mentioned in the bonds. It is doubtful whether pawn-broking comes under the scope of the Act. A number of families has pledged their jewels with the sowcars of Kurinjipady for small sums which carry very high rates of interest.

Repayment of Scaled Down Debts.

One of the most sensible criticisms of the Act is that there is no provision to enable the agriculturist to repay his scaled down debts. While on the one hand the creditor who is adversely affected is not redressed by immediate payment of the scaled down debts, on the other, the debtor will be harassed by the infuriated creditor who will prefer claims in the Court against him. Naturally, there will come to stay a large number of landless agriculturists as a result of the Act. A ryot of the Kottavancheri village of the Cuddalore Taluk said, during the enquiry, that the repayment of loans should be based on instalment basis as in the case of land mortgage banks and that the Revenue Department should take the responsibility of collecting the instalments regularly for the creditors as arrears of land revenue are collected. This method would avoid expenses that would otherwise be incurred, if the creditor were to go to a court of law. The Revenue Department is already saddled with much work and cannot go into the affairs of private transactions. Another suggestion is the time limit of one year for the repayment of scaled down debts. After that period, the civil Court on application by the debtor or creditor, shall decide that the debtor shall convey and the creditor shall accept in full satisfaction of the debt such property as is equal in value to the debts due by him. The value of the property is to be decided on a proportion that is fixed in the case of

lands to assessment; in the case of houses and buildings, the net annual rental value taken for the assessment of property tax; and in other cases, the capitalised value of the net income from properties. Where the assets of a debtor are less than his liabilities, the creditor shall accept only such proportion of the scaled down debts that the total assets of the debtor bear to his total liabilities. While this proposal is fine on paper, it does not give an opportunity to the debtor to pay his debts in instalments. The anxiety of the Government to preserve the land from passing on to non-agriculturists will be defeated by this proposal. A proposal is made that the Government should issue bonds to creditors in full settlement of the debts by the debtors and thus transfer the claim on debtors to itself. Debts will be collected in instalments over long periods when the land revenue falls due. But the difficulty is that the entire responsibility of liquidating indebtedness falls on the Government. Huge amounts by way of interest should be paid to bondholders irrespective of the debtors paying the instalments. More than this, it will lead to a prolonged enquiry into each and every case before a settlement is made.

It is gratifying to note that Government is making attempts to organise debt conciliation boards throughout this Presidency to give effect to the relief that is foreshadowed in the Debtor's Relief Act. It is necessary for the Government to issue a notification calling upon all debtors and creditors to file in a prescribed form their claim before the village munsiff of their villages within an appointed date. This will give an idea of the amount of conciliation work that is to be undertaken, the number of centres where they are to be started and the amount of loans the Government would have to supply to the small and medium holders. Suitable amendment should be made in the Debt Conciliation Act if necessary, or rules should be framed both under the Agriculturists' Relief Act and the Debt Conciliation Act to enable the latter to effectively undertake the spreading of relief that is propose in the former.

The Government has provided a sum of Rs. 50 lakhs in the budget for the disbursement of loans to the small ryots in order to enable them to take full advantage of the provisions of the new Act. Moreover, the Government has increased the guarantee in respect of debentures issued by the Central Land Mortgage Bank to a total face value of Rs. 250 lakhs. This is exclusive of such debentures as the Bank from time to time may redeem. The debentures should be issued for periods not exceeding twenty five years bearing interest at 5% and less. It

is hoped that this will give scope for money lenders to invest their funds in these debentures. This increased guarantee goes a long way in providing funds to the big land-holders to pay off their scaled down debts. But the enormous delay in the grant of loans by land mortgage banks must be ended.

Conclusion

Though the Act needs improvement in many ways, it cannot be denied that this measure is a bold one and unique in its character. But this Act by itself cannot bring about the economic rehabilitation of the agriculturists. Indebtedness is the result of poverty and in turn aggravates poverty. So the curative methods that are adopted should aim at rooting out poverty. In the succeeding chapters it will be shown how multi-purpose co-operative society can, in addition to supplying cheap credit, increase the income of the agriculturists and prevent the debts wiped out from appearing again.

The Madras Debt Conciliation Act of 1936

The question of conciliation of debts has attracted almost all the Provincial governments. The Central Banking Enquiry Committee suggested a vigorous policy of debt conciliation on a voluntary basis. The Government of the Central Provinces and Berar were the first to act on the suggestion of the Banking Enquiry Committee, and in 1933, passed the Debt Conciliation Act. The Punjab, Bengal, Madras and Assam followed suit. The Central Provinces Act is the foundation on which the other acts are based.

Other Provinces

Before discussing the provisions of the Madras Act the position in other provinces may be briefly summarised. The main idea of these acts is that scaling down of debts should take place as a result of mutual agreement between the debtor and the creditor through the debt conciliation boards. The boards in the Punjab and the Central Provinces consist of not less than three members and not more than nine. The members include representatives of creditors and debtors. Revenue Divisional Officers of ripe experience have been appointed as chairmen. The jurisdiction of the Boards is limited in the different provinces, e.g., in the Central Provinces only debtors who do not owe more than Rs. 25,000 may apply to the Debt Conciliation Board. In the Punjab the limit is Rs. 10,000. Certain classes of debts are excluded under the Acts.

The Central Provinces Debt Conciliation Act does not exclude rent debts. The Bengal Act includes rent arrears subject to a number of restrictions. The Punjab Act excluded co-operative debts from the scope of the Act while in Central Provinces, Assam and Bengal these debts could be settled with the previous approval of the Registrar in writing. The Punjab Act excluded debts due to banks and debts incurred for purposes of trade by an agriculturist, while Bengal excluded debts due to banks.

A debtor or any of his creditors may apply to the Board appointed for the area in which the debtor resides to effect a settlement. Every creditor is called upon to submit a statement of debts to the Board within a specified period. Failure to comply with this provision will entail a discharge of all debts due to him. The rules regarding applications for debt settlement should be as simple as possible to enable an ignorant and illiterate debtor to furnish the statement with the aid of a scribe. The Bengal Act requires full particulars of the property of the debtor with their value to be given by him in the application which he is not able to fill up in many cases. To check fraudulent practices in the submission of applications, the Bengal Act empowers the Board to dismiss an application if the debtor being a joint debtor or a joint surety wants to defraud his partners in the debt, or if the application includes any claim which is intended to defraud many creditors, or there has been transfer of any property by the debtor within two years previous to the date of such application with a view to defraud any creditor. Before the Board begins its work of settling debts, it should stay the proceedings in the court in respect of such debts. The Central Provinces and the Punjab had not much difficulty in this direction while the village boards of Bengal experienced much difficulty. In the case of agreement in the Central Provinces, 'unless creditors to whom not less than 40% of the total amount of the debtor's debts are owing come to an amicable settlement with the debtor, no agreement can be arrived at between them.' Where the debtor has made the creditor a fair offer which he ought reasonably to accept, the Board may grant the debtor a certificate. The effect of a certificate on a creditor was that the court would disallow costs of the suit, and any interest more than 6% (simple) when the certificate is produced by the debtor. A non-agreeing unsecured creditor could not execute a decree until the amounts recorded as payable to creditors who have agreed have been paid off, or the agreement has ceased to subsist. Decrees for recovery of rent can always be executed. In the Punjab while an improve-

ment was made on the Central Provinces Act by providing for settlement of debts between a debtor and one or more creditors who might not be owing 40% of the debts, it has gone back on the Central Provinces Act by laying down that a certificate could be offered to the debtor only if creditors to whom 40% of the debts are owing have come to an amicable settlement with the debtor. The result was that certificates could not be issued in all cases even if the creditor had refused a fair offer. Bengal has made more stringent offers regarding the effect of a certificate. If a fair offer was not accepted by a creditor, a certificate might be issued to the debtor in respect of the debt to which the offer related. While the effect of the certificate is the same as in Central Provinces, a decree in respect of certified debts could be executed only after the expiry of such period not exceeding ten years specified in the certificate. In Bengal if creditors to whom 40% is owing agreed and the Board agreed that the offer of the debtor was fair, the Board may either pass an order that the debt to which the offer relates should be settled in accordance with such an offer or might issue a certificate. As in the Punjab, the Bengal Boards can grant an award on the basis of an amicable settlement even though the amount of debts settled did not amount to 40% of the total. The Board in Bengal might pass an order even binding a secured creditor to the award even though he might not agree. The interest due might be reduced and the original principal determined. In Bengal and Central Provinces debts incurred by the debtor after his application to the board could not be recovered by execution of any decrees until the award has ceased to subsist or the amounts payable under it have been paid. This incidentally gave creditors in respect of settled debts first charge on the properties of debtors. Another inducement to the creditors is the facility granted to them to recover the instalments through revenue officers. Except in Bengal, where appeals are provided for over the operation of village boards, no appeal or revision of order of the Board is allowed in other Acts. But a Board may review its own order on the application of an interested person or of its own motion. In the Central Provinces and Assam acts, lawyers are not allowed to appear before the Board, while in other acts they are allowed to appear with the permission of the Board.

The Boards have got certain wide powers. They can summon and examine parties and witnesses and call for documents. They can attach the immovable property of a debtor after receipt of his application. "Every transfer of property made with intent to defeat or delay the creditors of the debtor shall be voidable at the option of any creditor so

defeated or so delayed." (Central Provinces, Assam, Madras and Bengal Boards). The Bengal Act has provision providing for penalties (fining and imprisonment) "for making false statements, for producing false documents, for falsely personating or abetting any punishable act."

In the Central Provinces, the Punjab and, to a certain extent, in Bengal substantial results have been achieved by working the debt conciliation boards. In Central Provinces, where the greatest success was attained, nearly 50 debt conciliation boards were started and several of them were wound up after finishing their work. The Boards settled 46,537 cases involving an amount of Rs. 5·63 crores till the end of June, 1937. The amount was scaled down by nearly 48%—2·93 crores. The number of boards at work in the Punjab and Assam are five and two respectively. In Bengal the working of the Boards is not smooth and there is very much delay.

Madras Act

In Madras a bill for conciliation of debts was brought about by Mr. Ramalingam Chettiar in 1934, but the Government was not prepared to undertake any such legislation. On the report of Mr. Satyanathan on Agicultural Indebtedness, the Conciliation Bill was taken up and was passed into law. The experience of the working of debt conciliation boards in other provinces was not availed of and the six debt conciliation boards started under the Act in 1937 were not given a fair trial. The Congress Government which introduced the compulsory scaling down of debts by the Madras Agriculturists' Relief Act of 1938 revived the conciliation boards which gave the debtor the right to apply to these boards for a settlement of debts. Ninety-two boards have been formed covering the whole length and breadth of the Presidency so that all debtors may apply to these boards and have their debts scaled down according to the Madras Agriculturists' Relief Act.

The salient features of the Act are as follows. It applies only to agriculturists or occupancy tenants or landholders whose debts are above Rs. 100. Applications for the settlement of debt may be made either by the debtor or creditor. Thus the debtor can get a settlement of all his debts as scaled down by the Agriculturists' Relief Act without proceeding to a Civil Court. Particulars to be stated in the application are not simple and many applications are rejected on this count. An application can be dismissed if the Board does not consider it desirable or practicable to effect a settlement of debts. This section is vague and

under cover of this section the Chidambaram Debt Conciliation Board has rejected 277 applications in 1939 out of 374 applications taken for conciliation.

The procedure followed in the settlement of debts is as follows:— A debtor or any of his creditors may make an application for settlement of the debts giving the particulars mentioned in section 6 of the Act. On receipt of the application, the board fixes the date and place for hearing the application. The necessary notices are sent to the debtor and his creditors and the latter are expected to submit the accounts within two months of the receipt of the notice. Every debt of which a statement is not submitted to the Board shall be deemed to have been discharged. The Board may decide a dispute after taking evidence as to the existence or the amount of the debt due to any creditor or the assets of any debtor. It can summon and examine parties and witnesses who are liable to a criminal charge or to a penalty if they give out false statements. The provisions of the Agriculturists' Relief Act by which the amount due is scaled down statutorily will be taken into account by the Debt Conciliation Board. On this basis, the Board prepares a complete schedule of the creditors and of the assets and liabilities of the debtors. If the creditors to whom more than 50% of the debts are due come to an amicable settlement with the debtor, such settlement will be reduced to writing in the form of an agreement. The agreement will be registered within thirty days by the chairman and it will take effect as if it were a decree of court. It is, however, necessary as in the Punjab to arrive at a settlement with creditors even though 50% of debts are not owing to them. No settlement of a Co-operative debt shall be valid without the permission of the Registrar of Co-operative Societies. When a secured creditor does not agree to the settlement, such settlement will not affect his rights to proceed against the secured property. The Board can issue a certificate to the debtor, if a creditor does not agree to an amicable settlement. If that creditor sues the debtor the court will neither allow him any cost nor a rate of interest in excess of simple interest at 6%. If any creditor sues a debtor for a debt incurred after settlement of the debts, it will not be executed as against the assets set apart in the agreement for the satisfaction of the agreed debts until all amounts under the agreement have been paid. No court can entertain any suit in respect of any matter pending before the Board or question the agreement under this Act. A debtor before the Board cannot alienate his property without the Board's approval.

After the passing of the Madras Agriculturists' Relief Act, the ninetynine boards spread over the Presidency have no question of conciliating the debts by mutual agreement but only determining the amount due to each creditor in relation to the provisions of the Agriculturists' Relief Act. The boards mainly give effect to the scaling down of debts under the other Act. The working of the Debt Conciliation Act in the whole Presidency cannot be judged so early. But an idea of some of the defects in the Act can be had by studying the working of the Chidambaram Debt Conciliation Board.

The Chidambaram Debt Conciliation Board.

The Board in Chidambaram constituted in the middle of January 1939 began to function from the middle of February. The members of the Board are the Revenue Divisional Officer, who is the chairman and two non-officials, (Dr. B. V. Narayanaswamy Naidu, Professor of Economics, and a lawyer). The total number of applications received in the year was 445 (437 applications from debtors and 8 from the creditors). The debts in almost all the cases were affected by the Agriculturists' Relief Act. The following table will give an idea of the working of the Board for the year 1939.

Applications instituted			Disposed of			Number of sitting
Month	Number	Amount	Rejected Sec. 7	Sec. 9	Agree-ments	
Jan.	..	..	..	..	..	..
Feb.	6	31516 0 0	..	..	..	..
Mar.	40	50651 12 6	..	1	..	2
Apr.	38	70326 8 2	21	..	..	1
May	20	16532 13 0	1	1	..	1
June	51	73967 3 10	29	6	..	2
July	58	131830 3 2	9	6	..	2
Aug.	74	86112 4 6	4	24	..	2
Sep.	67	137319 10 10	11	10	..	3
Oct.	56	67671 10 7	7	37	..	3
Novr.	21	59857 15 11	5	73	5	2
Decr.	16	34114 3 0	1	114	4	4
Total	447*	759900 5 6	88	277	9	22

*Only 445 applications were actually instituted but two were once dismissed and restored.

Out of the total of 447 applications received and 374 disposed of, the Board was able to effect an agreement only in nine cases. It means that in other cases the parties had to go to the civil court. Decree holders who had already got decrees and secured creditors also entered into the agreement in these nine cases. The sums involved in all these nine cases amounted to Rs. 7759-6-9 while those in the case of the 447 applications amounted to Rs. 7,59,900-5-6. It is indeed curious that the majority of applications rejected were under section 9 of the Act by which, in the estimate of the Board, conciliation was not desirable or practicable. Perhaps the Board used this clause too often to the detriment of the debtors. The aim of the Board should be to bring together the creditors and debtors by personal appeal. Some cases were dismissed for default or negligence in application and a few cases for want of bonafides on the part of debtors. It is, however, necessary to amend the Act in such a way as to make application more easy. Only in two cases were certificates issued to debtors against creditors who refused a fair offer of settlement. The time taken for the disposal of applications is four months normally and six months at the utmost. Cases are not wanting where debtors have appeared before the court several times before their applications have been disposed of. It must be the policy of the Board to dispose of applications in the first sitting or at the latest in the second. Unnecessary costs are incurred by the ryots in attending the Board several times and in the end they are told that their applications are dismissed. It must be made compulsory for creditors also to attend the Board. For then there is a greater scope for personal influence of the members of the Board playing a part in effecting a settlement. On no account should lawyers be allowed to appear before the Board, as their appearance reduces the Board to the nature of a Civil Court.

In almost all cases, the debtors rushed to the Board only to avail themselves of Section 25 of the Act which enable them to drag on the proceedings in Court and to avert temporarily impending execution proceedings and sales. Moreover, the nature of debts is such that the assets bear a very small proportion to the total debts. It is, however, necessary to introduce insolvency provisions applicable to debtors in the Debt Conciliation Act. Again, secured Creditors should be placed on the same level as unsecured creditors. As the debtors own heavily encumbered property, the secured creditors at present do not want to relinquish their security with the result that the other simple creditors have no means of recovering their amounts. To avoid all these difficulties, drastic

changes should be made in the Debt Conciliation Act or the present Act might be scrapped and Debt Adjustment Courts to deal with debts, scaled down by the Agriculturists' Relief Act, should be started as in the Central Provinces. Such courts will have wide powers in dealing with creditors who are willing to come to terms and, in fact, they will compel the creditors to come to terms. In conclusion, it must be said that compulsion and not conciliation will succeed in the matter of scaling down debts in the Madras Presidency.

CHAPTER 6

MONEYLENDING AND REGULATION OF MONEYLENDING

A survey conducted in the Cuddalore Taluk has revealed that 89% of the borrowings of the ryots was from ryot moneylenders, Saukhars and peasants, 10·3% from Co-operative societies and 7% from Government.* Mr. Satyanathan's figures for the 141 villages surveyed by him are —93% Moneylenders and others, 6% Co-operative Societies and 1% Government. These figures compare favourably with the figures collected in Cuddalore Taluk. So it cannot be doubted that the bulk of the loans to the agriculturists comes from moneylenders.

Who are the Moneylenders?

It is impossible to arrive even at a rough number of moneylenders in this Presidency, for there is no agency through which such statistics could be collected. Moreover, there are not only professional moneylenders but ryot moneylenders also. In fact, money lending by one ryot to another is very common. The Madras Banking Enquiry Committee said "There are moneylenders everywhere, but it is doubtful whether even half of the moneylending of the Presidency is done by professional moneylenders." The survey conducted in the South Arcot (vide tables 13 to 15) gives us an idea of the number of ryot moneylenders and others who lent out to agriculturists. Out of 31 loans on mortgages both simple and usufructuary in fifty families 30 loans were from ryot moneylenders; out of 55 loans on bonds 45 were from ryot moneylenders; and out of 41 minor loans including hand loans which bear no interest 20 were from the Saukhars. As these figures show, lending from one ryot to another is very common in the South Arcot District. Small traders and merchants also lend to agriculturists. The 'Komattis' (Vaisyas) in the Telugu villages, the oil mongers in the North Arcot, the Vaisya Chettis in the Central and Southern districts and the Mapillas in the West coast lend money to villagers on condition that the produce should ultimately come to them for sale. These petty merchants lend their

* Vide Appendix, Tables 13 to 15.

own capital and occasionally take loans from the indigenous bankers. The Marwaris, who lend money to the villagers on jewels, gold and silver, brass vessels etc. and on pronotes and produce, generally trade on their own capital and occasionally borrow from the more wealthy of their class. These Marwaris have their shops in small towns and market centres. The villagers in the surrounding villages pledge their jewels and utensils with them for loans at very heavy rates of interest. It is very difficult to get any information from these Marwaris. There are about four shops of Marwaris in Kurinjipady and almost all the villagers around this small market centre borrow from these Marwaris on the pledge of jewels.

Kinds of Loans

The ryot moneylenders and other professionals generally lend money on pronotes, personal security or on joint security and on the mortgage of landed property. Pronote debts are to be returned within a short time, generally a year. The rate of interest was generally high, but now the Madras Agriculturists' Relief Act of 1938 has fixed a statutory rate of interest at 6¼%. When the rate of interest was high the ryot was unable to repay within the stipulated time with the result that the interest that accrued at the end of the stipulated period was added to the principal and a fresh bond was executed. In the course of a few years, the debt multiplied itself many times over and ended in a mortgage debt, the debtor mortgaging his lands and houses as security for the loan. Such cases are legion in the South Arcot District, as is revealed by the enquiry in certain villages. The mortgage debt continued for sometime when finally the creditor took the ryot to the court and secured his decree. Eventually, he took possession of most of his lands.

A rough calculation of the lands that have changed hands in the Madras Presidency between 1931 and 1934 has been given by Mr. W. R. S. Satyanathan in his Report on Agricultural Indebtedness in the Madras Presidency. As already described in Chapter 3 on Indebtedness, the total number of acres which changed hands in two typical villages in each district of the Madras Presidency except Malabar and South Kanara between 1931 and 1934 is 23,932 acres. Mr. Satyanathan says "there are 21,631 ryotwari villages in the twenty five districts of the Presidency. The average number of ryotwari villages per district may be taken to be 865....... So the total ryotwari area that changed hands

from 1931-1934 for the Presidency except Malabar and South Kanara may be roughly calculated as 10,351,000 acres." About 20% of this, according to his calculations, went to non-agriculturists. He reckons that a good portion of this went to moneylenders.

Moreover, the mode of keeping accounts is very unsatisfactory. Usually no receipts are given to ryots for repayment of loans. They are generally noted in the pronotes. Certainly there is nothing to prevent them from noting them. During the survey in South Arcot District it was found that many ryots were unable to give the exact figures of their debts including principal and interest. They were able to give only the original sum borrowed years ago and the renewals of the bonds at intervals. They were not able to produce any receipts for the payments they had made. In effect, the poor agriculturist who once contracted a debt always found himself in debt and never got out of it.

The Rate of Interest.

Among the system of mortgages there are two kinds, the simple mortgage which bears a rate of interest and the usufructuary mortgage which does not bear interest, but the benefits of the property (which is the security for loan) are enjoyed by the moneylender. Both simple and usufructuary mortgages are common in South Arcot District, but the former is more popular. The rate of interest that is commonly charged by the moneylenders on simple mortgages, according to the survey, varies from 10 to 18%, but 12% rate of interest is very common. Thus, out of 17 cases of simple mortgage 11 cases bear an interest of 12%.* According to Mr. Sathyanathan's survey in the whole of the Presidency the most common rates of interest range from 9 to 12%. The Madras Banking Enquiry Committee Report examined the rate of interest for 100 mortgages every third year between 1887 to 1929 and found that the number of mortgages at 12% remained constant. Mortgages registered in the Sub-Registrar's Office, Chingleput between 1887 to 1929 showed that the number of mortgages between 11 and 12% was the largest.** The Report of Investigators of the Madras Banking Enquiry Committee arrives at the same conclusions. The Madras Banking

* Appendix II, Table 13.

** Report of the Madras Banking Enquiry Committee, p. 223.

Enquiry Committee gives the rates of interest prepared from settlement reports in the following districts:—

		Rates of interest.
Tanjore District:—		
Secured debt	..	9 to 12%
Unsecured debt	..	6 to 24%
Trichinopoly District:—		
If borrowed from ryots	..	12%
If borrowed from moneylenders	..	18%
East Godavari, West Godavari, and Kistna:—		
Mortgages of immovable property	..	9 to 12%
Pledge of movables	..	12 to 15%
Unsecured loans	..	12 to 18%
Bellary and Anantapur Districts:—		
Black cotton soil taluks of Bellary and Anantapur.—		
4% of the amount of debt	..	6% and less
22% do.	..	6 to 9%
44% do.	..	9 to 12%
23% do.	..	12 to 18%
3% do.	..	18 to 24%
Red soil taluks of Bellary District.—		
57% of the secured debt	..	12% and less
3% do.	..	24% and more
80% do.	..	12% and less
1% do.	..	24% and more
Red soil taluks of Anantapur District.—		
70% of the secured debt	..	12% and less
80% of the unsecured debt	..	12% and less
12% of the secured debt	..	12 to 18%
15% of the unsecured debt	..	12 to 18%
2% of the secured debt	..	18 to 24%
2% of the unsecured debt	..	18 to 24%

The Madras Banking Enquiry Committee gives also the rates of interest claimed in suits in courts in six districts and the greatest number of suits claimed a rate of interest between 12 to 13%.* These conclusions derived from different methods and at various periods point out that the general rate of interest on mortgages is 12%.

The rate of interest on Bonds, according to the survey in the South Arcot District, varies from 12 to 24%. Twelve percent and eighteen

* Report of the Madras Banking Enquiry Committee, pp. 226-227.

percent rates of interest are common. (Appendix II-Table 14). The rates of interest of unsecured debts according to settlement report (table given above) range from 6 to 24% in Tanjore, 12 to 18% in East Godavari and 12% and less in Bellary and Anantapur districts. According to Mr. Sathyanathan's Report the ryot moneylender charges between 9 to 18% and a penal rate from 18% upwards for default in payment of interest. At every renewal—normally once in three years—the unpaid interest is added to the principal. Thus compound interest with three year rest is charged.

The rates of interest of the Marwaris vary according to the demand for money, the value of the security offered and the personality of the borrower. For example, a rich mirasdar will get a loan on the pledge of jewel for a lower rate of interest than a poor ryot. According to the Madras Banking Enquiry Committee Report "The smallest of these moneylenders operate among workshop coolies, railway employees and the like, lending petty sums at rates varying from 20 to 150 per cent. With the development of his business larger loans are given at more reasonable rates which vary usually between 12 and 24%." Mr. Sathyanathan said that the Marwaris charged from 18 to 50% simple or compound interest and often more, and their operations were distinguished by the most hard-hearted ruthlessness. During the survey in the Villages of the South Arcot District, it has been found that the Sowcars of Kurinjipadi usually charged between 18 to 37½% but 9 pies for a rupee for a month or 56¼% was not uncommon. (Appendix II-Table 15). A loan secured on gold should necessarily bear a lower rate of interest but the sowcars charge the highest rate because of the borrowers' urgent need. Enquiry in the villages has shown that in most cases the jewels were not redeemed because the high rate of interest soon mounted up and made it impossible for the poor ryots to redeem the jewels.

Some Natukkottai Chettiars lend money on what is known as the kandu, kist or thandal systems. In this system, the interest is deducted in advance and the amount is repaid in equal instalments either daily, weekly or monthly. As no rebate of interest is allowed on the principal repaid, the rate of interest works out to a much higher figure.

Another kind of moneylending which reduces the poor agricultural labourer to life long serfdom is prevalent in most of the districts of the Madras Presidency. The landlord lends a certain sum of money—usually Rs. 100 to Rs. 200—to an agricultural labourer who undertakes to

serve the landlord till such time as he returns the money. The service he does covers the interest for the loan and the wages he gets are below subsistence level. The result is the labourer could never hope to get the sum he borrowed from his master and is bound to him for ever and thus loses his opportunity to get work anywhere he likes at terms favourable to him.

Considering the return from agriculture, the rate of interest paid on the capital used by the agriculturist is usurious. It is correct when Mr. Sathyanathan says "It is obvious therefore that lending to the average agriculturist in India at rates, which exceed 6 per cent simple interest per annum, must be regarded as usurious, whoever the creditor may be." During the economic depression the income from land almost dwindled to nothing and the rate of interest on the working capital was really burdensome. The necessity for lower interest rates and scaling down debts has already been stressed in the previous chapter. Both by voluntary methods—debt conciliation boards—and compulsory measures—The Madras Agriculturists' Relief Act—the rate of interest has been fixed at 6¼% per annum on a loan taken by an agriculturist. The effect of the compulsory measure in Madras has already been discussed. There was a sudden shrinkage of credit and in many cases the poor ryot in dire need of money colluded with the moneylenders to evade the law. Cases were brought to light where the moneylenders executed bonds with the statutory rate of interest but paid the agriculturist actually only half the sum mentioned in the bonds. Such practices can be easily put an end to.

Regulation of Moneylending.

The most important measures in the matter of regulating moneylending—the Madras Agriculturists' Relief Act (which laid down that any rate above 6¼% to the agriculturist was usurious and unlawful) and the Debt conciliation Act (which sought to reduce debts and interest through conciliation boards)—have been discussed in the previous chapter.

The Usurious Loans Act of 1918:—Before 1855 regulations in Madras and some other provinces fixed the maximum rate of interest at 12%. Usury laws were repealed in that year and the Hindu law of Damdupat was not followed. The agreed rate between the parties had to be decreed. On the recommendation of the commission appointed in 1891 to enquire into the working of the Deccan Agriculturists' Relief

Act, the Government of India amended the Contract Act in 1899 declaring void contracts in which undue influence was exercised or unconscionable transactions were entered into. As the contract Act was not of much use against the abuses of moneylending, the Madras Government pressed for some legislation in 1906 against exhorbitant rates of interest. Some of the suggestions are that the rates of interest should be statutorily limited, that the principle of Damdupat should be embodied in law and that the courts should have powers to reopen the accounts and determine the original principal to be paid. In 1918 the usurious loans Act was passed. A debtor could not get relief under this Act except by driving the creditor to court by refusing to repay. He could not sue the creditor for accounts and for redemption of mortgages. The Act was amended in 1926 enabling a debtor to apply for redemption of mortgages. Under the Act, the court might reopen a transaction, if, in its opinion, the interest was excessive or the transaction between the lender and borrower substantially unfair. In deciding excessive interest and unfair-transactions, the criteria for the guidance of the courts are "(1) the risk taken by the creditor, including the presence or absence of security and the financial condition of the borrower, (2) the various other charges besides interest made by the creditor, such as charge, in money or in kind, for expenses, inquiries, fines, bonuses, premia and renewals, (3) the compound interest if any, charged, and (4) all the circumstances attending the loan including the need of the debtor." According to the Act decreed amounts could not be reduced. "Where a bond was overwritten and there was failure of consideration, the court was helpless, unless extraneous evidence was strong enough to prove what was actually lent." These set a limit to the reopening of accounts. Accounts might be reopened upto a period of twelve years from the date of transactions even in the case of renewed loans. The excess over the fair rate of interest already paid would be adjusted to the principal and any overpayment would be refunded to the debtor. The court was also empowered to set aside, revise or alter any security given or agreement made in respect of a loan. But the conditions imposed on the determination of a fair transaction nullified the application of relief clauses to the debtors. Again, the debtor cannot sue the creditor for accounts according to this Act. A debtor can sue only for redemption of mortgages. The Madras Agriculturists' Relief Act, which replaces the Usurious Loans Act in many respects, does not provide for the suing of accounts and thus prevents the debtors from applying to the court for getting the relief provided in the Act.

Mr. Sathyanathan, in his inquiry into the working of the Usurious Loans Act, was supplied with figures by District Judges regarding the interest awarded in cases that came before them. A uniform procedure is not followed in all the cases. Mr. Satyanathan says "The number of cases, in which the usurious loans act has been applied, forms a ridiculously low proportion of the total number of cases dealt with. The decisions as to what is usury and what is not, seem fickle and uncertain and the rates of interest eventually allowed vary from 30% to 6%. I am compelled therefore to conclude that the decisions have not always been arrived at on definite principles of law, but somewhat perhaps according to the individual personality of the presiding judges......in cases where the defendant does not appear and is therefore declared exparte, the interest claimed is never questioned by court, however high it might be. It is an established fact that such defendants, being hopelessly poor and despondent, seldom contest the claims of their rich and powerful creditors, who invariably engage good lawyers to represent them. I am led to believe further that the amount of principal claimed and recorded in the pronotes or registered documents is never questioned by the courts in any suit, although it is well known that the borrower very often does not get the amount recorded in the documents. The worst of it is that interest is calculated on fictitiously recorded principal amounts, thus enhancing the rates of interest to an enormous extent." The above quotation gives a very good idea of the unsatisfactory way in which the Usurious Loans Act is worked.

The Madras Banking Enquiry Committee Report, the Central Banking Enquiry Committee Report and Mr. Satyanathan's Report are of opinion that no definite statutory rate of interest should be fixed. In discussing the Madras Agriculturists' Relief Act in chapter 5 we have pointed out how the fixing of such a maximum limit was beneficial to the agriculturists and a step in the right direction.

Regulation of Accounts

The Punjab Regulation of Accounts Act of 1930 was the first of its kind in British India. Almost all the Provinces have passed laws on the basis of the Punjab Regulation of Accounts Act. In Madras also the Madras Debtors Protection Act of 1935 regulates moneylenders accounts in a very restricted sphere. In fact, that Act is almost a dead letter. The Government that brought in

the Agriculturists' Relief Act was planning to introduce a Moneylenders' Bill for the regulation of accounts and of moneylending in general; but owing to a deadlock in the constitution nothing was done.

The main provisions of the Punjab Regulation of Accounts Act are that moneylenders or shopkeepers who advance loans in money or in kind at interest should keep an account for each debtor and send him every six months "a signed statement of the accounts, distinguishing between principal and interest and detailing all the loan transactions of the past six months. If a separate account is not maintained for a debtor, the creditor, on suing him, is liable to lose his interest and will in any case not be awarded his costs."

Briefly stated, the provisions of the Madras Debtors' Protection Act are as follows:—Explaining the term 'loan' the Act says that it means "an advance of money or in kind at interest, being for a sum, or being of value, of less than five hundred rupees at a time in any one transaction and includes any transaction which the court finds in substance to amount to such an advance but does not include . . . . (sub-section 7 of Sec. 2). Thus a loan above Rs. 500 cannot come under the Act. But this Act, unlike other acts, requires pawnbrokers also to keep accounts noting the details of the article pledged, the time agreed for redemption, the name of the pawner and the name of the owner of the article. A copy of the entry in such account should be delivered to the pawner on payment of the prescribed fee. Just as in the Punjab Act, every creditor is to maintain an account. In addition the Madras Act requires the creditor to record the rate of interest charged on the loan. But the statement of accounts should be furnished to the debtor only if he asks for it, on the payment of the prescribed fee. Failure to maintain accounts or give receipts or statement of accounts on demand will result in the waiving of interest during the period of default and the disallowance of cost in suits by creditors. It was laid down that if the interest charged exceeded 9% simple interest in the case of secured loans and 15% in the case of unsecured loans the court would presume for the purposes of sections 3 and 4 of the Usurious Loans Act that the interest was excessive and the transaction substantially unfair. But sections of the Usurious Loans Act can be applied by the court even though the rates of interest may be less than those prescribed by this Act.

It is, however, necessary that the limit of Rs. 500 placed on the loans that could come under this Act should be abolished. As in the Punjab and in some other provinces, the creditor should necessarily send a half-

yearly statement of accounts to each of his debtors showing the total interest and principal due separately and all the transactions relating to the loan in the previous six months. The debtor should be allowed to sue for his accounts. This provision may be avoided if inspectors and auditors are appointed to examine the accounts of the moneylenders periodically. As Mr. Sathyanathan says, this Act "should be brought prominently to the notice of the public at an early date, and that the attention of all Civil Judges should be drawn to its provisions."

Insolvency Laws

The cry of the moneylender is that the insolvency acts are used often by the dishonest debtors to evade payments and that this is facilitated by the delay in liquidation proceedings by the official receivers. The Madras Banking Enquiry Committee recommended that the official receivers and assignees should be permanent salaried government officers and that the insolvency cases should be dealt with more expeditiously by civil courts. In this connection, it must be emphasised that a simple rural insolvency act should be introduced to enable the poor villagers to make immediate use of that Act. The present insolvency act is so complicated that the poor peasants are unable to take protection under this Act.

Both the Madras Banking Enquiry Committee and Mr. Sathyanathan's Report give figures to show the inordinate delay of proceedings in courts and the delay in execution. Mr. Sathyanathan was supplied with figures by judges in thirteen districts. A summary of the figures is as follows:

Year.		Average duration of suits (days)
1930	..	397
1931	..	574
1932	..	384
1933	..	322
1934	..	489

The figures by the Madras Banking Enquiry Committee are interesting—

	Average number of days.	
	Contested suits.	Uncontested suits.
Sub-Courts ..	568	90
District Courts ..	560	146
Appeals in District and Subordinate Judges' Courts ..	427	210

The position in 1939 has not materially changed. These prolonged proceedings in courts involve great cost to money-lenders as well as peasants. Execution of a decree involves greater delay and obstacle. The Madras Banking Enquiry Committee is correct when it says "The loss by being compelled to have recourse to the courts to recover dues is so considerable that the interest must be charged at a high rate to cover that loss and the ready payer must pay for the others who cannot or will not pay in full; so that there is here a strong argument against prompt payment and any one who pays on the due date comes to be regarded as more foolish than his fellows. Quicker decision and prompter and more effective execution are essential if better facilities are to be given for cheap credit."

The provision of arrest in the execution of decree should be abolished in the case of agriculturists particularly and of all others generally.

A land alienation Act restricting the alienation of land on the basis of the Punjab Act should be immediately introduced in this Presidency to prevent the alienation of all lands to moneylenders. In this Province except in the Agency tracts no restriction has been placed on the alienability of ryotwari lands.

Registration and Licensing of Moneylenders

The Madras Banking Enquiry Committee are of opinion that registration should be optional to a moneylender. The Central Banking Enquiry Committee say that the main objects of registration viz., reduction of the high rates of interest and the removal of dishonest practices among certain members of their class—may be achieved by utilising the Usurious Loans Act more fully, by regulating accounts on the model of the Punjab Regulation of Accounts Act, by educating the rural borrower and by the spreading of co-operative and joint stock

banking. Hence they are against licensing of moneylending. But licensing of moneylending in addition to regulation of their business may be justified on three grounds. "Firstly it helps to locate the class of persons whose accounts have to be supervised. Secondly, it lays the foundation for the growth of organised rural banking which will in course of time be connected with larger banking institutions. It helps also for the gradual audit of accounts and for enforcement of rules of business by superior financing banks as the Reserve Bank. Thirdly one result of the regulation of moneylenders will be the driving out of occasional moneylending and the investment of funds in organised banks or in the hands of bigger moneylenders."* In addition, registered moneylenders who will really grow in strength and maintain correct accounts may have a good chance of being appointed as agents of joint stock banks in the country. "This would remedy one of the obstacles of branch banking in India, namely the complete ignorance of the urban banker as to the conditions prevailing in the mofussil and the high cost of running a full fledged branch in the interior with a responsible manager."

Registration of moneylenders is being provided for in recent legislations in several provinces. To minimise too much interference in rural moneylending, moneylenders and moneylending may be defined and certain class of loans by certain persons—e.g., kind loans, loans by landlords to tenants etc., may be exempted. In licencing moneylenders a limit of capital invested in the business may be laid down. To further licensing in the initial stages, unlicensed moneylenders should not be given the benefit of suing in courts for the recovery of loans. Suitable rules should be framed for the guidance of the Registrar of moneylenders. The District Collector in each district can conveniently act as the Registrar. A special Act should be framed for regulating pawnbroking which is very common in the rural areas.

*K. G. Sivaswami, Legislative Protection and Relief of Agricultural Debtors in India.

124095

The Reserve Bank is prepared to rediscount agricultural paper of moneylenders discounted by Scheduled banks at special rates by grant of rebates to scheduled banks in respect of such paper. This can be facilitated if the moneylenders are registered. An association of registered moneylenders can even approach the Reserve Bank for the direct discounting of their agricultural paper.

UNIVERSITY PUBLICATIONS

Names of Publications.	Author.	Price.
1. Factory Labour in India	Prof. A. Mukhtar ..	3 0 0
2. Bhoja Raja	Prof. P. T. Srinavasa Ayyangar ..	1 8 0
3. Swaramelakalanidhi	Mr. M. S. Ramaswami Ayyar	2 0 0
4. Naveena Tarkam	Mr. K. R. Applachariar ..	2 0 0
5. Text and commentary of *Tattvavibhavana* by Parameswara, a commentary on Vacaspati Misra's Tattvabindu.	Mr. V. A. Ramaswami Sastriar	3 0 0
6. Sri Mukundamala	Prof. K. Rama Pisharoti ..	3 0 0
7. Svarasiddhanta Candrika	Srinivasayajvan. Edited by Mr. K. A. Sivaramakrishna Sastri ..	5 0 0
8. Acoustics	Mr. R. K. Viswanathan ..	1 8 0
9. Pari Pattu	Vidvan R. Raghava Ayyangar	2 0 0
10. Trimsacchloki		
11. The Distributive Co-operation in India	Mr. V. G. Ramakrishna Ayyar	1 0 0
12. Nyāyakuliśa	Edited by Prof. R. Ramanujachari and Pandit K. Srinivasacharya.	
13. Nitimala	Do.	
14. A Text-book in Tamil on Chemistry, Vol. I.	Mr. N. Ananthavaidyanathan.	3 0 0
15. The Madras Agriculturists' Relief Act—A study.	Dr. B. V. Narayanasvami Nayudu and P. Vaidyanathan, M.A.	
16. Report on the Working of Prohibition in Salem.	C. Jagannathachari, M.A., M.Litt.	
17. The Madras General Sales Tax Act—A Study.	Dr. B. V. Narayanasvami Nayudu and S. Tiruvengadathan	1 8 0

University Publications—(*Contd.*)

Names of Publications.	Author	Price.
18. Educational Psychology in Tamil	Prof. K. R. Applachari and Prof. R. Ramanujachari	1 0 0
19. Road Rail Transport	S. R. N. Badri Rao, M.A., M.Litt.	5 0 0
20. A Text-book in Tamil on Physics, Vol. I.	Mr. R. K. Visvanathan, M.A,,	3 0 0
21. Philosophy of Aesthetic Pleasure	Mr. P. Panchapagesa Sastri	3 0 0
22. Groundnut	Dr. B. V. Narayanaswami Naidu and P. S. Hariharan	1 8 0
23. History of Tamil Literature.	Mahavidvan R. Raghava Ayyangar ..	2 0 0

24. The University Journal, Editor Dr. B. V. Narayanaswami Naidu
Annual Subscription Rs. 7-0-0 (Internal) 10s. (Foreign)

For copies apply to :—The Registrar, **Annamalai University, Annamalainagar.**

In the Press :—

A Text-book in Tamil on Chemistry (Vol. II). Mr. N. Anantavaidyanathan.

A Text-book in Tamil on Physics. (Vol. II). Mr. R. K. Visvanathan.

The History of Gingee. Rao Saheb Prof. C. S. Srinivasachariar.

Siddhitraya. Prof. R. Ramanujachari and Pandit K. Srinivasacharya.

Vedārthasaṁgraha. ,, ,,

PUBLICATIONS

OF

The Inter-University Board, India.

1.	Handbook of Indian Universities ..	2 0 0 *or* 3s. 6*d*.
2.	Facilities for Oriental Studies and Research at Indian Universities ..	0 8 0
3.	Facilities for Scientific Research at Indian Universities ..	0 12 0
4.	Bulletin of the Inter-University Board, India, No. 1 to 13 ..	1 0 0 *each*
5.	Biological Outlook on life and its Problems.—By J. Arthur Thomson, M.A., LL.D., Regius Professor of Natural History, University of Aberdeen ..	0 2 0
6.	Second, Third and Fourth Conference of Indian Universities ..	1 0 0 *each*
7.	Training of Teachers in Indian Universities ..	0 8 0
8.	Bibliography of Doctorate Theses in Science and Arts accepted by Indian Universities from January, 1930 ..	0 8 0
9.	Annual Report of the Inter-University Board for 1938-39 ..	1 0 0

POSTAGE AND V. P. CHARGES EXTRA.

Available from

THE BANGALORE PRESS,
"LAKE VIEW"
Mysore Road, Bangalore City.

MYSORE ECONOMIC JOURNAL.

The only Journal of its kind published regularly on the 7th of each month for over twenty years. Has a number of contributors and reviewers attached to it. Bright and topical in its contents, it has ever stood out for progressive and suggestive comments on public affairs and well being. Sir Roper Lethbridge called it the "Most admirable Journal". Annual subscription Rs. 6.

From the Book Department, books on economic matters can be always ordered. The following books are available for sale from stock:

PLANNED ECONOMY FOR INDIA by Sir M. Visvesvaraya, K.C.I., LL.D. Price Rs. 6.

MADURA SOURASHTRA COMMUNITY by K. R. R. Sastry, M.A., M.L., F.R. Econ. S. Price Re. 1.

INDIAN CASTE SYSTEM by C. Hayavadana Rao, B.A., B.L., F. R. Econ. S. Price Re. 1.

STUDIES IN RURAL ECONOMICS by S. Kesava Iyengar, M.A. Price Rs. 8.

TOWARDS NATIONAL SELF SUFFICIENCY by Dr. P. J. Thomas, M.A., B.Litt., Ph.D. Price As. 4.

MYSORE GAZETTEER (3 VOLS.). Edited by C. Hayavadana Rao, B.A., B.L. Price per set Rs. 20. Can also be had in parts at prices varying from Rs. 2 to Rs. 8 per volume.

Postage extra in all cases

Apply to:—

MANAGER, "Mysore Economic Journal",
No. 19, Gundopunt Buildings, Siddicutta,
BANGALORE CITY.

THE ADYAR LIBRARY

Director: Dr. G. Srinivasa Murti, B.A., B.L., M.B. & C.M., Vaidyaratna.

Jt. Director and Curator for Western Section: Bhikshu Arya Asanga.

Curator for Eastern Section: Prof. C. Kunhan Raja, M.A., D.Phil. (Oxon.).

BRAHMAVIDYA

THE ADYAR LIBRARY BULLETIN

APPEARING FOUR TIMES A YEAR.

Editor: Prof. C. Kunhan Raja, M.A., D.Phil. (Oxon.)

***Rates of Subscription*:**

Life Subscription Rs. 100
or $ 50
or £ 10

		Per Annum	Single Copy
India & Ceylon	..	Rs. 6	Rs. 2–8
U. S. A.	..	$ 3	$ 1·25
British Empire	..	Sh. 12	Sh. 5.
Other Countries	..	Rs. 9	Rs. 3–8

All Communications to be addressed to:

The Director,
Adyar Library,
Adyar, Madras, S., India.

THE VEDANTA KESARI

A high class monthly devoted to the solution of spiritual problems, and to the study of religion, philosophy and culture of all countries, from the liberal and catholic point of view embodied in the life and teachings of Ramakrishna-Vivekananda.

It has been in existence from 1914, and publishes articles, both popular and learned, from the pen of leading thinkers and writers of the East and the West. Has circulation in India, Ceylon, F.M.S., U.S.A. and Europe.

SUBSCRIPTION : *Inland Rs. 3 ; Foreign $ 2 or Sh. 8, per annum. Its subscribers get several of our publications at concession rate.*

Apply to :—

The Manager

VEDANTA KESARI

Mylapore, Madras.

JOURNAL OF THE ANNAMALAI UNIVERSITY

RATES OF ADVERTISEMENT

Particulars.	Per issue. Rs. A. P.	Per two issues. Rs. A. P.
Back Cover	15 0 0	28 0 0
Inside Back Cover	10 0 0	18 0 0
Inside Page	8 0 0	15 0 0
Inside Half Page	4 0 0	8 0 0

JOURNAL OF THE UNIVERSITY OF BOMBAY

Published five times a year with original articles and abstracts of theses of Research Work done by the students and teachers of the Bombay University, in the following subjects:

No. 1. History, Economics & Sociology (July)
No. 2. Arts and Law (September)
No. 3. Physical Sciences, including Mathematics (Novr.)
No. 4. History, Economics & Sociology (January)
No. 5. Biological Sciences, including Medicine (March)

Rates of Subscription

Annual subscription for Five Issues	.. Rs. 12
,, ,, Nos. 1 & 4	.. Rs. 5
,, ,, Nos. 3 & 5	.. Rs. 5
Number Two or a Single Copy	.. Rs. 3

For all kinds of University News
Subscribe to the
Bombay University Bulletin,
Annual Subscription: Rupee One, Post Free.

For advertisement rates and further particulars please write to:—

The Manager,
Journal of the University of Bombay,
University of Bombay, Fort, Bombay.

THE ARYAN PATH

Editor: Sophia Wadia,

STANDS FOR IDEALISTIC AND CULTURAL AIMS.

IDEALS free from Sectarianism. **DISCUSSIONS** free from Politics.
CULTURE free from National or Racial **Bias.**

Principal Contents for July:

THE BROTHERHOOD OF RELIGIONS .	Editorial
SWEDISH IDEALISM & RELIGIOSITY: I.—THE PHILOSOPHERS ..	By Alf Ahlberg
SONG OF CHEER ..	By Geoffrey Johnson
OF AESTHETICS: INDIAN & CHRISTIAN SCHOLASTIC THEORIES: SOME PARALLELISMS ..	By O. C. Gangoly
THE GOD IDEA ..	By Hervey Wescott
THE WILL TO LIVE ..	By R. S. Thomas
VACCINATION IS A SUPERSTITION ..	..
THE EVOLUTION OF INDIAN MYSTICISM: II.—THE WAY OF THE MYSTIC ..	By K. S. Ramaswami Sastri
THE BUSINESS OF THE SCHOOL ..	..
NEW BOOKS AND OLD ..	
CORRESPONDENCE ..	

Annual Subscription Rs. 6. Single Copy As. 12.

J. O. Department. **THE ARYAN PATH OFFICE**
"Aryasangha", Malābar Hill, Bombay.

124095
600 008

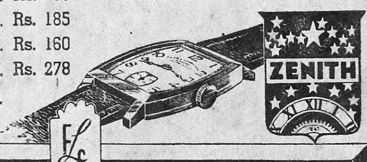
Printed and published by G. Srinivasachari, B.A., at G. S. Press, 21, Narasingapuram Street, Mount Road, Madras.

CHECK BEFORE YOU CHOOSE

"*you'll choose* ZENITH!"

Be critical when you buy your watch! The closer your inspection, the more searching your examination of this aristocrat and other watches, the more certain it is that your final choice will be ZENITH. For accuracy, style, quality, and value for money, this Swiss aristocrat scores top marks against any other watch. Folk who *know* wear ZENITH. You can see them all in the free illustrated catalogue which Favre-Leuba will mail gladly on request.

"ZENITH"	1063 ..	Rs. 98
	1065 ..	Rs. 185
	1066 ..	Rs. 160
	1067 ..	Rs. 278



Favre-Leuba

AND COMPANY LIMITED

BOMBAY CALCUTTA RANGOON